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NBS Publi-cations

NBS Special Publication 480-35

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Catalog of Security Equipment

Law Enforcement Equipment Technology

U.S. DEPARTMENT OF COMMERCE
National Bureau of Standards

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ACKNOWLEDGMENTS

This catalog was prepared by the Law Enforcement Standards Laboratory of the National Bureau of Standards under the direction of Lawrence K. Eliason, Manager, Security Systems Program, and Jacob J. Diamond, Chief of LESL. Its preparation was sponsored by the National Institute of Law Enforcement and Criminal Justice, Lester D. Shubin, Standards Program Manager.

NBS Special Publication 480-35

Catalog of Security Equipment

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Washington, D.C. 20234

and the

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Center for Consumer Product Technology
National Bureau of Standards
Washington, D.C. 20234

prepared for
National Institute of Law Enforcement
and Criminal Justice
Law Enforcement Assistance Administration
U.S. Department of Justice
Washington, D.C. 20531

November 1978

U.S. DEPARTMENT OF COMMERCE, Juanita M. Kreps, *Secretary*
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Jordan J. Baruch, *Assistant Secretary for Science and Technology*
NATIONAL BUREAU OF STANDARDS, Ernest Ambler, *Director*

t- Special pub. no 480-35

Library of Congress Catalog Card Number: 78-600140

National Bureau of Standards
Special Publication 480-35
Nat. Bur. Stand. (U.S.), Spec. Publ. 480-35, 58 pages
CODEN: XNBSAV

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON: 1978

For sale by the Superintendent of Documents,
U.S. Government Printing Office, Washington, D.C. 20402
Stock Number 003-003-01970-4 Price $2.30
(Add 25 percent additional for other than U.S. mailing).

FOREWORD

The Law Enforcement Standards Laboratory (LESL) of the National Bureau of Standards (NBS) furnishes technical support to the National Institute of Law Enforcement and Criminal Justice (NILECJ) program to strengthen law enforcement and criminal justice in the United States. LESL's function is to conduct research that will assist law enforcement and criminal justice agencies in the selection and procurement of quality equipment.

LESL is: (1) Subjecting existing equipment to laboratory testing and evaluation and (2) conducting research leading to the development of several series of documents, including national voluntary equipment standards, user guides, state-of-the-art surveys and other reports.

This document is a law enforcement equipment catalog developed by LESL under the sponsorship of NILECJ. Additional documents are being issued under the LESL program in the areas of protective equipment, communications equipment, security systems, weapons, emergency equipment, investigative aids, vehicles and clothing.

Technical comments and suggestions concerning this catalog are invited from all interested parties. They may be addressed to the authors or to the Law Enforcement Standards Laboratory, National Bureau of Standards, Washington, D.C. 20234.

Jacob J. Diamond, *Chief*
Law Enforcement Standards Laboratory

PREFACE

Many citizens feel a need to protect themselves and their property against burglars. Yet individual security needs vary widely, depending upon such factors as location, the nature and value of the property, and perceived need for family, employee, or personal protection. Selection of appropriate protection is often a complex problem. One must choose from numerous competing products which provide protection by different means. In addition, the security industry has its own jargon, which can make it all but impossible for anyone but an expert to determine the advantages and disadvantages of available equipment.

The purpose of this catalog is to familiarize the general public with the kinds of security equipment that are available for specific needs. By acquainting them with the equipment's application, and by identifying the manufacturers of the security products, it is hoped that they will be able to discuss their needs more fully with local suppliers and installers. Anyone interested in security, including law enforcement personnel who wish to provide assistance to the public, should find this catalog a valuable source of information.

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CATALOG OF SECURITY EQUIPMENT

John V. Fechter and Elizabeth M. Robertson

Center for Consumer Product Technology, National Bureau of Standards, Washington, D.C. 20234

This catalog is concerned primarily with security equipment which can be used to prevent "crimes of opportunity" against homes and businesses. The purpose of the catalog is to make readers aware of the available types of security equipment and to identify their manufacturers. Equipment is classified into four functional areas: physical security, access control, alarm systems, and business and industry equipment. Within each functional area, each item of equipment is identified and described in terms of its cost range, usual application, and manufacturers.

Key words: Alarms; burglary; catalogs; crimes of opportunity; intrusion detectors; physical security; robbery; security equipment; target hardening equipment; theft.

INTRODUCTION

The majority of property losses result from crimes of opportunity. By definition these crimes give thieves maximum advantage. Little preparation and less daring are required from thieves when property is ill-protected and the criminals' risk of apprehension is slight. The scope of this catalog is limited to equipment to prevent crimes of opportunity. In recent years, most police departments have established crime prevention units to help private citizens assess their vulnerability to crimes of opportunity, and to suggest common-sense actions which can improve property protection. The manufacturers of most kinds of security equipment that a crime prevention unit would recommend are included in this catalog. For the convenience of the user a few distributors have also been included.

The effectiveness of a security system results from the selection of appropriate equipment, its correct installation and its proper use. Equipment is often restricted in use by local ordinances and it is a good idea to investigate local requirements in detail prior to purchasing equipment.

Before purchase, it is important to identify the exact security problem needing solution. Once this has been properly considered, the alternative means of achieving protection can be weighed. It may be that all that is needed is improved physical security; perhaps simple measures to improve access control will prove adequate.

To assist the reader in choices regarding technical solutions to security problems, this catalog is divided into four categories of security technology: physical security, access control, alarm systems, and business and industrial equipment. It is hoped that the organization of this catalog will facilitate access to information that will guide them to intelligent protection of property. In some cases, it will be necessary to assemble a security system which draws upon several or even all the categories of equipment listed.

The information included in this catalog was compiled from brochures and price lists provided by manufacturers. The preparation of this catalog was widely announced in trade magazines, the Commerce Business Daily, and the Federal Register. All manufacturers of security equipment primarily concerned with crimes of opportunity were invited to provide product information. In addition, the technical staff searched specialized mailing lists, sending individual letter requests to over 3,000 manufacturers. Only those firms that responded are included in this catalog. In some instances, information was received which was not included because it concerned items either outside the scope of this document or only marginally related to it. It should be recognized that there are differences in the equipment of individual manufacturers that cannot be identified by the limited number of categories used here. When readers select equipment, they

should discuss finer points of difference with local suppliers and also review specific product literature.

Security is not simply a one-time acquisition of equipment. Many items of security equipment will require regular maintenance. Customers should investigate maintenance requirements before purchase, and establish a suitable schedule of service for each item in accordance with the manufacturer's recommendations.

The catalog contains information based entirely upon that furnished by the manufacturer. No attempt was made to evaluate the equipment in the laboratory. Inclusion in this catalog does not imply or represent either endorsement or recommendation of any equipment or manufacturer by either the National Bureau of Standards or the National Institute of Law Enforcement and Criminal Justice. Conversely, failure to list a manufacturer or product does not constitute criticism or rejection of that manufacturer or his products. The information included in this catalog is current as of the fall of 1977.

HOW TO USE THIS CATALOG

Following a brief discussion of topics related to each category of security equipment there is a description of specific equipment items in that category. The price range of each item is included in parenthesis after each entry. The equipment costs *do not include the cost of installation,* which can often substantially exceed the price of the equipment. It is wise to request quotations for installation from more than one installer before making a purchase. Manufacturers and distributors of the items of security equipment are listed at the end of each section, alphabetically by product. Their addresses and telephone numbers appear at the end of this catalog. Those companies identified with an asterisk (*) sell only through wholesalers or distributors. All others will sell directly to individual consumers.

The Law Enforcement Standards Laboratory (LESL) of the National Bureau of Standards has developed a wide range of voluntary national performance standards for physical security and intrusion alarm system components. Glossaries of technical terms, technical reports, and user guides have also been developed. In addition, LESL has developed such documentation for communications equipment and a variety of other equipment often used in law enforcement and crime prevention.

A copy of the current LESL publication list is available upon request. Please direct correspondence to the Chief, Law Enforcement Standards Laboratory, National Bureau of Standards, Washington, D.C. 20234.

PHYSICAL SECURITY

Physical security concerns the protection of property by denying unauthorized access to it by means of locks and structural barriers. The level of physical security that is appropriate depends upon the location and value of the property being protected; the burglary rate in urban areas, for example, is twice that of suburban areas and four times that of rural areas.

Physical security especially for doors is the starting point in selecting items for the protection of personal and commercial property. The door is the point of entry in approximately two-thirds of all burglaries. Although doors are left unlocked all too often, burglars frequently force their way through locked doors. There are many different types of locks that can be used for security; however, the best lock in the world is useless if it is not used. It is also worthless if the rest of the door assembly is structurally weak. Lock attack is only one method of forced entry. The ability of a door to resist forced entry depends upon the entire door assembly, which includes the door, the hinges, the jamb, the lock, and the strike plate. Each of these components contributes to the level of security, and the manner in which they are assembled is important. In many cases, it will be desirable to use stronger and longer screws than those furnished with the lock to attach the lock and strike to the door assembly. If possible, the screws used to attach the strike or hinges should extend through the jamb and into the structural members behind it.

Swinging Door Locks

Nearly all main entry doorways use swinging doors that are hinged on one side, either singly or in pairs. Swinging doors are held closed by a lock bolt or a latch bolt that is projected into a strike plate on the door jamb, or on the stile (edge) of the companion door in the case of a double door entry. A latch bolt is one that projects into the strike plate automatically by spring action when the door is closed. A dead bolt is a lock bolt that must be manually projected (thrown) into the strike plate by either a thumb-turn, or through the use of a key. When in the projected position a dead bolt will resist attempts to push it back into the lock and out of the strike plate by applying end pressure upon the bolt. In contrast, the latch bolt can be pushed into the lock and out of the strike plate by applying end pressure on the latch and it is suitable for use only on interior doors as a passage or privacy lock, such as on a bedroom. A dead locking latch bolt is a type of spring actuated latch bolt that will resist efforts the depress it by applying end pressure.

Many locks are designed to be assembled in holes or cavities in a door and the person installing such locks must have mechanical ability and skill to do it properly. Rim locks are designed to be mounted on the inside surface of a door, and may require less skill on the part of the installer.

BARREL BOLTS ($1–$5)

A barrel bolt is an inexpensive type of dead bolt that does not allow the use of a key from the exterior. It consists of a cylindrical rod that is free to move in a metal housing attached to a flat plate. A small handle protrudes from the side of the bolt at one end. This handle slides in a slot in the housing. There are two notches at each end of the slot. When the bolt is moved to either end of the slot, the handle is rotated into the notch to lock the bolt in that position. A small cylinder attached to a flat mounting plate serves as the strike. Barrel locks are frequently used for fences and gates, and are sometimes used on windows.

BARRICADE BOLTS ($50–$100)

This is a massive metal bar that is attached to large strikes on both sides of a door. Barricade bolts are available with locking devices; they are completely removed from the door when not in use.

CYLINDER DEAD BOLT LOCKS ($5–$60)

This is a dead bolt controlled by a key-operated cylinder lock. The interior mechanism which projects the bolt may be a thumb-turn or a second lock cylinder which also requires a key. If a double-cylinder dead bolt is installed, its use could present a safety problem in case of fire

when the key may not be readily available. Cylinder dead bolts are also available with a double-throw action, which permits the bolt to be extended a second time, beyond the projection of the initial setting action.

CYLINDER GUARDS ($1–$10)

Any cylinder lock can be compromised by several types of physical attack if the cylinder is unprotected. A cylinder guard prevents the cylinder from being wrenched or pried away from the door. One type of guard is a steel plate that is fastened over the cylinder; another is a ring that is mounted around the cylinder.

KEY-IN-KNOB LOCKS ($3–$25)

This is a very popular residential lock. This type of lock is installed in a door as part of the hand set. Key-in-knob locks are available with latch bolts or dead locking latch bolts. The outside knob is locked against movement when a push-button or thumb-turn on the inside knob is actuated, and is then turned by use of a key. The key-in-knob lock should not be used as the only door lock unless it has a dead locking latch bolt.

MORTISE LOCKS ($10–$50)

A mortise lock is inserted into a rectangular cavity cut into the edge of a door or into a cavity fabricated in a metal door at the time of manufacture. They are available in a variety of operational configurations. Some have a single dead locking latch bolt with push-buttons on the edge of the door that are used to lock or unlock the exterior knob. Others have a dead bolt, separate from the latch bolt, that is actuated from the inside by turning a thumb-turn. Mortise locks are also available with double-cylinder dead bolts that must be key-operated from the inside or outside. A mortise lock should not be used in a wooden door unless it is specifically designed for such use, for when the cavity is cut into a wooden door it will severely weaken the door.

NIGHT LATCHES ($2–$30)

A night latch is a rim lock that is attached to the inside surface of a door and can not be operated from the outside. The latch is projected into a strike box that is surface-mounted on the door jamb. Some night latches incorporate a dead locking latch bolt.

PANIC HARDWARE ($25–$150)

Public buildings should have their doors secured from outside entry by unauthorized individuals, but the building must also provide for rapid evacuation in the case of fire or other emergency. Virtually all building codes require panic hardware on public buildings and multiple dwellings.

Panic hardware usually consists of a massive lock and strike and a horizontal rod across the door. When this rod is pushed, the door is unlocked and opened at the same time.

PIVOT BOLTS ($0.50–$3)

A pivot bolt is a keyless lock whose resistance increases as the amount of force against it increases. It is basically a cam which moves in and out of place by swinging on a pivot. A pivot bolt locks automatically when the door is closed, and is released by manual action from the inside.

POLICE BOLTS/BRACES ($50–$100)

A police bolt or brace is a bar that is braced between the inside surface of a door and the floor. Some are simply wedged beneath the door knob; others have a keyed locking mechanism attached to the door to allow the brace to be locked.

STRAIGHT BOLTS ($3–$100)

A straight bolt is essentially a metal bar that is attached to a door and manually moved into a strike on the jamb.

VERTICAL INTERLOCKING DEAD BOLT LOCKS ($3–$15)

The vertical dead bolt lock is attached to the inside surface of a door in the same manner as the night latch. This lock uses a bolt system in which the strike has two or more metal rings which

are aligned vertically and extend out from a metal attaching plate. These rings mesh with similar rings on the edge of the lock when the door is closed. Each lock ring contains a bolt which is basically a vertical rod on the end of a lever. When the unit is locked, the rods are moved vertically into the strike rings. These locks have the advantage of restricting lateral movement, and can be quite resistant to attempts to gain entry by jimmying.

VERTICAL SWING BOLT LOCKS ($10–$50)

This is a type of mortise lock designed for use in thin doors with small frames, such as glass store-front doors. The bolt is designed to swing up from the lock, rather than to project horizontally.

Sliding Glass Door and Window Locks

Windows are the point of entry in about one-third of all burglaries. Sliding glass doors are particularly vulnerable to forced entry. There are several locks available to secure sliding glass doors and windows.

BAR LOCKS ($5–$25)

The bar lock is a rigid bar that can be extended between the center edge of the inside sliding glass door and the opposite jamb. Some have keyed locking devices, and many can be permanently mounted on the door. The bar is pivoted at one end so it can swing out of the way into a stored position when not in use.

CHANNEL LOCKS ($2–$6)

The channel lock is a device which is placed so that it butts against the edge of a sliding glass door or window and fastens to the adjacent channel, or track, in which the door or window slides. In some cases, the side of the channel is drilled in a number of locations so that the door can be either locked or enabled to open to one of those positions, the lock being bolted through the appropriate channel hole. In other cases, the lock is held in place by being clamped to the channel. A channel lock can be completely manual or include a keyed lock.

HOOK BOLTS ($5–$60)

A hook bolt is often used as the primary lock in sliding glass doors. This lock is mounted inside the door frame, and can be operated manually or with a key. The bolt, with a hook on its end, swings upward from the inside of the lock front, hooking into the strike hole to prevent the door from being moved laterally.

Glass Protection

Many of the auxiliary locking devices already mentioned can be used to improve the security of windows; however, none of them will prevent an individual from breaking the glass to gain entry.

IMPACT-RESISTANT GLAZING (A custom product)

In high crime areas, it may be desirable to replace conventional window glass with impact-resistant glazing. Windows can be constructed of tempered glass, laminated glass, wire glass, or plastic.

IMPACT-RESISTANT SCREENS (A custom product)

These screens can be installed over windows to prevent glass breakage. Attention must be paid to the manner in which the screen is installed to insure that the intruder does not simply remove the screen to gain access to a conventional window behind the screen.

Merchandise and Record Protection

There are several locks available to secure merchandise display cases, cabinets, and file cabinets. In addition, special storage containers are available for valuable records and property.

CAM LOCKS ($1–$5)

The cam lock is often used to secure cabinet doors. The bolt, actuated by a key, rotates in a plane parallel to the face of the door and engages the strike to prevent the door from being opened.

PLUNGER LOCKS ($2–$20)

This kind of lock is most frequently used on file cabinets. It is locked by pushing the protruding portion of the spring-action lock into the cabinet. When the key is turned a portion of the lock springs out of the cabinet, thereby opening it.

PORTABLE FRICTION LOCKS ($1–$5)

A portable friction lock consists of a metal bar that is inserted between the sliding glass doors of display cases. One end of the bar is hooked around the inner edge of the inner door, and the lock is attached to the other end so that it butts up against the adjacent edge of the outer door so that neither door can be moved.

SAFES/VAULTS ($40 and up)

These are primarily associated with banks or financial institutions, businesses, and industrial firms. The home owner, too, may wish to use a small safe to protect certain valuable property. Both burglar and fire protection can be provided through the use of an appropriate safe.

Miscellaneous Locks and Hardware

CABLES and CHAINS ($1–$3 per foot)

Cables and chains are used in conjunction with a padlock to prevent the unauthorized removal of a portable item such as a bicycle or motor bike.

PADLOCKS ($2–$50)

Padlocks are often used to secure storage sheds or similar buildings. In most cases, the padlock is used in conjunction with a hasp. The hasp consists of a heavy metal staple protruding from a surface mounting plate and a hinged metal strap with a slot that closes over the staple. The strap is made so that when closed it covers the screws which attach it to the wall or door, and also covers the screws in the mounting plate of the staple. A padlock is inserted through the staple and locked.

PORTABLE WALLS/FENCES/GATES/GRILLES (Custom products)

These products are constructed of interwoven flexible chains, expandable steel gates, or roll-away steel doors. They are all used to protect store fronts of city businesses after hours, and can be moved out of the way during normal business hours. These units are also used on trucks and in warehouses needing ventilation in addition to physical security.

TAMPER-PROOF SCREWS (less than $0.25)

Tamper-proof screws are one-way screws. Their heads are designed so that they cannot be removed with a conventional screw driver, but can be tightened periodically if necessary.

TRAILER LOCKS ($10–$50)

Trailer locks are attached to small trailers or the king pins of large cargo trailers to prevent their theft. While these devices help to protect a trailer, they should not be relied upon as the sole method of protection.

MANUFACTURERS OF PHYSICAL SECURITY EQUIPMENT

BAR LOCKS

Charles Bar-Lok Corp.
Hardware Sales and Supply Co.
H. Hoffman Co.
Loxem Mfg. Corp.
Schlage Lock Co., Inc.
John Sterling Corp.

BARREL BOLTS

Hardware Sales and Supply Co.
H. Hoffman Co.
Leigh Products, Inc.
Lustre Line Products

BARRICADE BOLTS

Adams Rite Mfg. Co.
Best Lock Corp.
Fox Police Lock Co.
Magic Eye Associates, Inc.
S. Parker Hardware Mfg. Corp.
P.T.I.-Dolco

CABLES

Campbell Chain Co.
Fort Lock Corp.
Lustre Line Products
Master Lock Co.
S. Parker Hardware Mfg. Corp.

CAM LOCKS

Best Lock Corp.
Corbin Hardware Div.
Fort Lock Corp.
Illinois Lock Co.
Russwin Hardware Div.

CHAINS

Aimsco, Inc.
Campbell Chain Co.
Central Specialties Co.
Hardware Sales and Supply Co.
Master Lock Co.
Nixdorff-Krein Industries
S. Parker Hardware Mfg. Corp.
Shur-Lok Mfg. Co., Inc.
Taylor Lock Co.

CHANNEL LOCKS

Aimsco, Inc.
All-Rite Industries, Inc.
BBW Service
Dexter Locks
Eaton Corp.
Folger Adam Co.
Franklin Lock & Pulley Mfg. Co.
H. Hoffman Co.
Kwikset Locksets
Leigh Products, Inc.
Loxem Mfg. Corp.
Mountain West Alarm Supply Co.
S. Parker Hardware Mfg. Corp.
Protecto Alarm Sales
P.T.I.-Dolco
S and D Industries, Inc.
Sargent and Greenleaf, Inc.
Schlage Lock Co., Inc.
Se-Kure Controls, Inc.
Shur-Lok Mfg. Co., Inc.

CYLINDER DEAD BOLT LOCKS

Accurate Lock & Hardware Co.
Aimsco, Inc.
Alarm Lock Corp.
Arrow Lock Corp.
Best Lock Corp.
Chicago Lock Co.
Corbin Hardware Div.
Dexter Locks
Eaton Corp.
Falcon Lock
Falcon Safety Products, Inc.
Fichet, Inc.
Folger Adam Co.
Fort Lock Corp.
Hardware Sales and Supply Co.
Harloc Products Corp.
H. Hoffman Co.
Illinois Lock Co.
Kwikset Locksets
Leigh Products, Inc.
Lock Corp. of America
Lori Corp.
Loxem Mfg. Corp.
Lustre Line Products
M.A.G. Eng. & Mfg., Inc.
Master Lock Co.
Medeco Security Locks, Inc.
MIWA/Security Control Systems
New England Lock and Hardware Co.
S. Parker Hardware Mfg. Corp.
P.T.I.-Dolco
Russwin Hardware Div.

Schlage Lock Co., Inc.
Silent Watchman Corp.
Simplex Security Systems, Inc.
Taylor Lock Co.
Weiser Lock

CYLINDER GUARDS

Adams Rite Mfg. Co.
Arrow Lock Corp.
Best Lock Corp.
Bolen Industries, Inc.
Corbin Hardware Div.
Fox Police Lock Co.
Kwikset Locksets
Magic Eye Associates, Inc.
Mountain West Alarm Supply Co.
Russwin Hardware Div.
Weiser Lock

HOOK BOLTS

Adams Rite Mfg. Co.
Best Lock Corp.
Chicago Lock Co.
Folger Adam Co.
Hardware Sales and Supply Co.
H. Hoffman Co.
Leigh Products, Inc.
Lustre Line Products
John Sterling Corp.

IMPACT-RESISTANT GLAZING

Chicago Bullet Proof Equipment Co.
Chromalloy Safetee Glass Co., Inc.
John Degorter, Inc.
Laminated Glass Corp.
Lustre Line Products
Pittsburgh Plate Glass Co.
Protective Materials Co.
Rohm and Haas Co.
Se-Kure Controls, Inc.
Sheffield Poly-Glaz, Inc.

IMPACT-RESISTANT SCREENS

Kane Mfg. Corp.

KEY-IN-KNOB LOCKS

Adams Rite Mfg. Co.
Alarm Lock Corp.
Arrow Lock Corp.
Best Lock Corp.
Corbin Hardware Div.
Falcon Lock
Folger Adam Co.
Fort Lock Corp.
Franklin Lock & Pulley Mfg. Co.
Hardware Sales & Supply Co.
Harloc Products Corp.
Illinois Lock Co.
Kysor Industrial Corp.
Lock Corp. of America
Lustre Line Products
Master Lock Co.
S. Parker Hardware Mfg. Corp.
Preso-Matic Lock Co., Inc.
Proximity Devices, Inc.
Russwin Hardware Div.
Schlage Lock Co., Inc.
Simplex Security Systems, Inc.
Taylor Lock Co.
Weiser Lock

MORTISE LOCKS

Accurate Lock & Hardware Co.
Adams Rite Mfg. Co.
Arrow Lock Corp.
Best Lock Corp.
Corbin Hardware Div.
Dexter Locks
Eco Security Corp.
Falcon Lock
Folger Adam Co.
Franklin Lock and Pulley Mfg. Co.
Hager Control Systems
Hardware Sales and Supply Co.
Harloc Products Corp.
H. Hoffman Co.
Illinois Lock Co.
Loxem Mfg. Corp.
Lustre Line Products
Medeco Security Locks, Inc.
MIWA/Security Control Systems
Russwin Hardware Div.
Taylor Lock Co.

NIGHT LATCHES

Aimsco, Inc.
Best Lock Corp.
Corbin Hardware Div.
Eaton Corp.
Franklin Lock and Pulley Mfg. Co.
Hardware Sales and Supply Co.
H. Hoffman Co.
Leigh Products, Inc.
Lori Corp.
Lustre Line Products
M.A.G. Eng. & Mfg., Inc.
New England Lock and Hardware Co.

S. Parker Hardware Mfg. Corp.
Russwin Hardware Div.
Taylor Lock Co.

PADLOCKS

A.W. Fruh and Co.
Aimsco, Inc.
Best Lock Corp.
E.J. Brooks Co.
Chicago Lock Co.
Corbin Hardware Div.
Dexter Locks
Eaton Corp.
Edmund Scientific Co.
Falcon Safety Products, Inc.
Fort Lock Corp.
Franklin Lock and Pulley Mfg. Co.
Hardware Sales and Supply Co.
H. Hoffman Co.
Illinois Lock Co.
Lustre Line Products
Master Lock Co.
Medeco Security Locks, Inc.
Mountain West Alarm Supply Co.
S. Parker Hardware Mfg. Corp.
Russwin Hardware Div.
Sargent and Greenleaf, Inc.
Schlage Lock Co., Inc.
Weiser Lock

PANIC HARDWARE

Alarm Lock Corp.
Best Lock Corp.
Corbin Hardware Div.
Hardware Sales and Supply Co.
H. Hoffman Co.
Jackson Exit Device
S. Parker Hardware Mfg. Corp.
Russwin Hardware Div.
Silent Watchman Corp.
Von Duprin, Inc.

PIVOT BOLTS

Lustre Line Products
Mountain West Alarm Supply Co.
P.T.I.-Dolco
Shur-Lok Mfg. Co., Inc.
Snib Security Products

PLUNGER LOCKS

Best Lock Corp.
Chicago Lock Co.
Fort Lock Corp.
Hardware Sales and Supply Co.
H. Hoffman Co.
S. Parker Hardware Mfg. Corp.
Taylor Lock Co.
Weiser Lock

POLICE BOLTS/BRACES

Adams Rite Mfg. Co.
Folger Adam Co.
Fox Police Lock Co.
Magic Eye Associates, Inc.

PORTABLE FRICTION LOCKS

Aimsco, Inc.
Hardware Sales and Supply Co.
H. Hoffman Co.
Loxem Mfg. Corp.
Lustre Line Products
S. Parker Hardware Mfg. Corp.
P.T.I.-Dolco
Shur-Lok Mfg. Co., Inc.
John Sterling Corp.

PORTABLE WALLS/FENCES/ GATES/GRILLES

Anchor Post Products, Inc.
Colorguard Corp.
Criterion Gate and Mfg. Co., Inc.
Kinnear Corp.
Roll-O-Matic Chain Co.

SAFES/VAULTS

Aimsco, Inc.
Detroit Mini-Safe Co.
Greenwald Industries, Inc.
Johnson-Pacific Safe Co.
Mosler Safe Co.
Schlage Lock Co., Inc.
Schwab Safe Co., Inc.

STRAIGHT BOLTS

Adams Rite Mfg. Co.
Alarm Lock Corp.
Arrow Lock Corp.
Best Lock Corp.
Chicago Lock Co.
Dexter Locks
Falcon Lock
Fichet, Inc.
Folger Adam Co.
Fort Lock Corp.
Franklin Lock and Pulley Mfg. Co.
Hardware Sales and Supply Co.
Harloc Products Corp.
H. Hoffman Co.

Illinois Lock Co.
Lock Corp. of America
Lori Corp.
Lustre Line Products
Master Lock Co.
MIWA/Security Control Systems
New England Lock and Hardware Co.
S. Parker Hardware Mfg. Corp.
Preso-Matic Lock Co., Inc.
P.T.I.-Dolco
S and D Industries, Inc.
Schlage Lock Co., Inc.
Simplex Security Systems, Inc.
Taylor Lock Co.
Weiser Lock

TAMPER-PROOF SCREWS

Aimsco, Inc.
Folger Adam Co.
Greenwald Industries, Inc.
Jefferson Screw and Bolt Industries, Inc.
Loxem Mfg. Corp.
Pan-L-Fast
Sargent and Greenleaf, Inc.

TRAILER LOCKS

Aimsco, Inc.
Best Lock Corp.
E.J. Brooks Co.
Campbell Chain Co.
A.L. Hansen Mfg. Co.
Hardware Sales and Supply Co.
H. Hoffman Co.
Kwikset Locksets
Master Lock Co.

VERTICAL INTERLOCKING DEAD BOLT LOCKS

Aimsco, Inc.
Best Lock Corp.
Corbin Hardware Div.
Eaton Corp.
Franklin Lock and Pulley Mfg. Co.
A.W. Fruh and Co.
Hardware Sales and Supply Co.
H. Hoffman Co.
Leigh Products, Inc.
Lori Corp.
Lustre Line Products
New England Lock and Hardware Co.
S. Parker Hardware Mfg. Corp.
Russwin Hardware Div.
Taylor Lock Co.

VERTICAL SWING BOLT LOCKS

Adams Rite Mfg. Co
S. Parker Hardware Mfg. Corp.

ACCESS CONTROL

Access control is a security technique used to insure that only authorized individuals are allowed to enter a protected area. Basically, access control is accomplished by ensuring that an individual is identified and his right to enter an area verified prior to granting access into the area.

CARD READER LOCKING MECHANISMS ($125–$500)

Card readers are becoming popular in hotels, motels, parking lots, and industry. These systems will open a lock when an authorized card is inserted into a card reader. They generally employ optical or magnetic reading systems. Some systems will retain cards that are not authorized for access, and some will sound an alarm at a remote location if an unauthorized attempt to gain access is made. Computer-operated systems, which allow the authorization codes to be changed as often as desired, are available for large installations.

CHAIN INTERVIEWERS ($2–$50)

This is a popular means of identifying the person at a door without fully opening the door. These are widely used in apartments, residences, and hotel/motel rooms.

DOOR VIEWERS ($2–$50)

A small optical viewer, used in residential doors, which enables the occupant to see who is at the door without opening it.

ELECTRIC STRIKES ($25–$250)

In some apartment buildings, the main entry to the central hallway is locked with an electric strike in addition to being equipped with an intercom. Once a tenant has verified the identity of his visitor by means of the intercom, he can actuate the electric strike. This moves the strike away from the bolt so that the door can be opened. The door lock can also be operated in the normal fashion with a key. Electric strikes are also widely used in industry and business to regulate access to buildings or high-security areas. In these applications, the electric strike is normally controlled by the building guard.

FINGERPRINT ACCESS MECHANISMS ($70,000–$120,000)

These systems use holographic (3-dimensional photographic) techniques to compare fingerprints. In some cases the holograph of the authorized person's fingerprint, stored on a card in the control system, is compared with that on the bearer's card. In other designs, the actual fingerprint is compared with that on file in the control system.

GUARD BOOTHS ($300–$2100)

Access to industrial facilities is often regulated by the use of private guards stationed at entrances in fences which surround the entire grounds of a complex. Guard booths are used to protect the guard from the weather, and to provide such items as telephone, electrical power, etc.

INTERCOMS ($25–$500)

Intercoms are used in both private residences and apartment buildings to screen individuals before granting them access to the living area.

PHYSICAL ATTRIBUTE ACCESS MECHANISMS ($3,000–$3,350 or leased for $66–$73 per month)

These mechanisms control access to protected areas by comparing measurements of an individual's hand with measurements on file in the system. These units are not designed for use in harsh environments.

PUSH-BUTTON LOCKING MECHANISMS ($325–$625)

Push-button locking mechanisms are frequently used to protect industrial high-security areas. These devices employ a keyboard of push buttons mounted in a protected housing adjacent to the locked door. When the buttons are pushed in the proper coded sequence, the electronic circuit actuates the door bolt or an electric strike to permit access.

TURNSTILES ($100–$250)

Turnstiles are used to provide access control through fences or other locations where it is desirable to admit people one at a time, and to permit movement in one direction only. Turnstiles can be regulated with electric controls.

MANUFACTURERS OF ACCESS CONTROL EQUIPMENT

CARD READER LOCKING MECHANISMS

Alarm Lock Corp.
Cardkey Systems
Detex Corp.
Dynacom
Eaton Corp.
General Binding Corp.
General Nucleonics, Inc.
Hardware Sales and Supply Co.
Honeywell, Inc.
Identimation Corp.
KMS Technology Center
Mosler Safe Co.
Protection Products, Inc.
Proximity Devices, Inc.
Robot Industries, Inc.
Rusco Electronic Systems

CHAIN INTERVIEWERS

Best Lock Corp.
S. Parker Hardware Mfg. Corp.
P.T.I-Dolco
S and D Industries, Inc.

DOOR VIEWERS

Aimsco, Inc.
Corbin Hardware Div.
Edmund Scientific Co.
Hardware Sales and Supply Co.
Home Protector Mfg. Co., Inc.
Kwikset Locksets
Leigh Products, Inc.
Loxem Mfg. Corp.
Lustre Line Products
Magic Eye Associates, Inc.
Mountain West Alarm Supply Co.
S. Parker Hardware Mfg. Corp.
P.T.I.-Dolco
Radio Shack
Russwin Hardware Div.
S and D Industries, Inc.
Shur-Lok Mfg. Co., Inc.
Taylor Lock Co.
Trine Mfg. Corp.

ELECTRIC STRIKES

Adams Rite Mfg. Co.
Continental Instruments Corp.
Corbin Hardware Div.
Folger Adam Co.
Hardware Sales and Supply Co.
Magic Eye Associates, Inc.
Mountain West Alarm Supply Co.
S. Parker Hardware Mfg. Corp.
Protection Products, Inc.
Proximity Devices, Inc.
Russwin Hardware Div.
Schlage Lock Co., Inc.
Securitron Magnalock Corp.
Trine Mfg. Corp.
Von Duprin, Inc.

FINGERPRINT ACCESS MECHANISMS

Calspan Corp.

GUARD BOOTHS

Chic Sales Co., Inc.
Keene Corp.
Par-Kut Engineering and Fabricating, Inc.
Starrco Co., Inc.

INTERCOMS

Alarm Supply Co., Inc.
American Device Mfg. Co.
Dukane Corp.
ESB, Inc.
GC Electronics
Hager Control Systems
Honeywell, Inc.
Loehr Burglar Alarms
Miles Reproducer Co., Inc.
MRL, Inc.
North American Philips Corp.
Nutone
Ratelco, Inc.
Rittenhouse Operations
Talk-A-Phone Co.
Technology Associates
Trine Mfg. Corp.
Von Duprin, Inc.
Westinghouse Security Systems, Inc.

PHYSICAL ATTRIBUTE ACCESS MECHANISMS

Identimation Corp.

PUSH-BUTTON LOCKING MECHANISMS

Acron Corp.
Alarm Lock Corp.
Alarm Supply Co., Inc.
Bowmar Instrument Corp.
Continental Instruments Corp.
Eaton Corp.

Folger Adam Co.
General Binding Corp.
Hardware Sales and Supply Co.
H. Hoffman Co.
Identifone Controlled Entry Co.
Monaco Enterprises, Inc.
Mosler Safe Co.
Mountain West Alarm Supply Co.
Preso-Matic Lock Co., Inc.
Protection Products, Inc.
Protecto Alarm Sales
Rusco Electronic Systems
Sargent and Greenleaf, Inc.
Simplex Security Systems, Inc.

TURNSTILES

General Nucleonics, Inc.
Knogo Corp.
Perey Turnstiles
Robot Industries, Inc.

ALARM SYSTEMS

The purpose of any alarm system is to alert someone to an immediate danger, such as a fire, holdup, or burglary. The alarm may be sounded or displayed only at the protected premises (a local alarm), or it may be transmitted away from the protected premises (a remote alarm system) to the police, an answering service, or a central station alarm company. If the alarm system is intended primarily as a deterrent, a local alarm may be all that is required. A remote alarm system is used when the system is intended to increase the probability that the burglar will be apprehended.

An alarm system consists of three basic parts: one or more sensors to detect the presence or actions of an intruder, a control unit that constantly monitors the sensors and transmits an alarm signal when a sensor detects an intruder, and the actual alarm annunciator. In the case of a local alarm, the annunciator can be a bell, siren, horn, or flashing light that will alert the occupant of the premises or adjoining property that an intruder has been detected. The remote alarm is most often received at an annunciator panel located in a police station or central station alarm company, where an audible alarm is sounded and a visual display identifies the location of the alarm system. Police are then dispatched to the scene of the burglary. A remote alarm can be transmitted silently, with no local alarm, simultaneously with a local alarm, or a local alarm can be triggered a few minutes after the silent alarm has been transmitted.

A perimeter alarm system is one in which point sensors are installed on all vulnerable points of entry, such as doors and accessible windows. Switches and metallic window foil are the most commonly used point sensors. Perimeter alarm systems are generally the most expensive to install, especially if the wiring and sensors are to be concealed from view, but are generally quite effective. Many perimeter alarm systems, particularly those in commercial establishments, are supplemented with interior protection sensors such as pressure mats or motion detectors.

Alarm systems can be designed so that various parts of a building have separate sensor circuits, or zones, and it is not uncommon to have a separate holdup alarm circuit to enable employees to summon police during a robbery. Some alarm systems also have shoplifting circuits. While burglar alarm circuits are normally active only during non-business hours, holdup and shoplifting circuits are active during business hours.

The installation of alarm system components is very important. Individual sensors are designed to respond to specific stimuli that indicate the presence of an intruder or attempts to gain entry into a protected area; a motion sensor will respond to any motion, even that of a dog or cat. Similarly, switch sensors must be mounted so that they detect the actual opening of a door or window, but at the same time, the manner of installation should not make them so sensitive to movement that they actuate an alarm from vibrations caused by a truck passing on the street or the wind rattling doors and windows. Care must be exercised in adjusting the sensitivity of the more complex sensors in order to avoid false alarms. Some units can be actuated by a flickering fluorescent light or a telephone bell. Electromagnetic interference from a mobile radio or a thunderstorm can trigger some detectors.

Customers should discuss their needs carefully with the alarm installer and ask for suggestions concerning what they might do to make the system effective. When customers have selected a system, they should understand how to operate it. In most cases, an alarm system control unit will incorporate a key-operated switch to place it in operation or to turn it off. Often, there will be a specific sequence of operations that must be followed.

Sensors for Point and Area Protection

Perimeter protection alarm systems utilize point protection sensors almost exclusively, while area protection sensors are used primarily in interior alarm system circuits to detect an individual within a building.

ALARM GLASS (A custom item)

Alarm glass is made with small wires molded inside the glass. These wires provide an alarm circuit that will be broken if the glass is cut or broken.

BURGLAR-PROOF SCREENS (A custom product)

Burglar-proof screens can be used to protect windows, particularly those which might be used for ventilation. These screens contain thin wire filaments that signal an alarm if the screen is cut.

CAPACITANCE PROXIMITY DETECTORS ($50–$500)

Proximity detectors are used to protect large metal items, such as file cabinets or safes. These detectors respond to the change in capacitance of the protected item caused by the approach of an intruder. They have also been used as sensors for window screens and metal doors.

HOLDUP BUTTONS/SWITCHES/BARS ($10–$250)

These switches of various types can be manually actuated to alert the guard service to the fact that a holdup is in progress. Some of these switches are also designed to be actuated by the thief himself, such as the money clip which signals an alarm when the money is removed from it.

METALLIC FOIL ($1–$5 per roll)

Because a window can be broken to gain entry without opening it, thereby avoiding the actuation of a switch sensor, metallic foil is often used on the glass. If the glass is broken, the foil also breaks and an alarm is actuated. Display cases in stores may also be protected by metallic foil. It is, however, possible to avoid breaking the foil by the use of a glass cutter.

PHOTOELECTRIC CONTROLS ($5–$50)

These units sense changes in the light level within their field of view. They are frequently used to turn outdoor lights on at night and off during the day, and can be used in an alarm system to detect a person moving between it and a light source.

PHOTOELECTRIC DETECTORS ($20–$1000)

A photoelectric detector consists of a light beam, often an invisible infrared beam, and a receiving unit. It is actuated when the beam is interrupted by a person passing through it. Photoelectric detectors are frequently used to protect outside fenced areas.

PRESSURE MAT SWITCHES ($7–$12 per foot–30 inch width)

Pressure mat switches are popular in residential systems. These sensors are concealed beneath the carpet in front of expensive items such as television or stereo systems. They are also placed in hallways or other locations where an intruder could be expected to walk if he entered without being detected by the door or window sensors.

PULL/TRIP TRAP SWITCHES ($6–$25)

This is a mechanical switch that is actuated when a wire connected to it is pulled. A thin wire across a hallway trips the switch if an intruder walks into it; it can also be connected to an overhead garage door.

STRESS DETECTORS ($50–$500)

A stress detector is a very sensitive device that is attached to a floor beam or step. The weight of an individual walking on the floor or step actuates an alarm.

SWITCH SENSORS

Switch sensors are normally used to detect the opening of doors or windows. The most commonly used switch sensor is the magnetic switch, the contacts of which open and close in response to the movement of a small magnet mounted on the door or window. Mechanical switches, with contacts that open and close by spring action, are used to a lesser extent in alarm systems. Mercury switches, with contacts that open or close when the switch is tilted, are often

used to sense the movement of an item that pivots about a horizontal axis, such as a transom or skylight.

VIBRATION DETECTORS ($5–$500)

These devices for the detection of attempted break-ins respond to vibrations of structural members caused by attack implements.

Sensors for Volume Protection

Volume protection sensors are designed to detect the presence or actions of an intruder almost anywhere within an entire room, from floor to ceiling. Volume sensors are complex electronic devices and often include control units as integral parts, enabling their use as self contained alarm systems (when used with suitable annunciators) or as components of large alarm systems.

INFRARED MOTION DETECTORS ($100–$1000)

This type of detector responds to a source of heat, such as the body of an intruder, that moves within its field of view.

MICROWAVE MOTION DETECTORS ($180–$1000)

These detectors are used for protecting large areas or volumes. They operate on the same principle as the radar units used to measure vehicle speed, and respond to motion in the protected area.

SOUND MONITORING SYSTEMS ($450–$2500)

This type of system enables a security guard at a remote location to listen for sounds which indicate the presence of an intruder in a protected area. Some systems use a telephone; monitored sounds are transmitted over the telephone line. It should be noted, however, that local codes may make the use of some types of these devices illegal.

SOUND SENSING UNITS ($19–$500)

These detectors incorporate circuits that respond to the noises of a break-in and actuate an alarm. Some systems permit the use of cancel-microphones to prevent the detector from actuating an alarm when equipment within the protected area starts up and runs. Some of these systems also include circuitry which allows a security guard to listen to the noises which had caused the device to actuate the alarm.

ULTRASONIC MOTION DETECTORS ($40–$500)

Ultrasonic motion detectors are used in sophisticated alarm systems. They generate a high frequency sound that is out of the normal range of human hearing. This signal is monitored by a microphone; motion within the protected area, or volume, causes it to signal an alarm.

Local Alarm Signal Equipment

Several types of local alarm signaling devices are available. The local alarm device that is selected should provide a distinctive signal so that any time it operates it will be recognized as a burglar alarm, and not be mistaken for other sounds or lights normally present in the immediate area of the protected premises.

ALERTING ANNUNCIATOR LIGHTS ($5–$50)

Annunciator lights can be used in addition to or in place of local audible alarms. These annunciators usually employ sudden bright beams of light to deter the intruders and to attract the attention of persons in the immediate area. They can be quite useful in noisy locations where it might be difficult to hear audible alarms.

BELLS ($10–$240) BUZZERS ($7–$10) HORNS ($1–$2500) SIRENS ($5–$500)

Bells, buzzers, horns, and sirens are all used as local audible alarms. Their purpose is to scare away an intruder and to alert any occupant of the protected premises. The local alarm system

can be more effective if arrangements have been made for a neighbor to call the police when an alarm is signaled.

AUDIBLE ALARM HOUSINGS ($5–$1000)

Housings are used to protect audible alarm devices from weather and attempts to disable them. Some of these units contain sensors to signal an alarm should an attempt be made to disconnect the audible alarm device.

Control/Transmission/Display Equipment

All alarm systems incorporate a control unit, which may or may not be a separate component. The control unit of a remote alarm system transmits the alarm signal to an annunciator who will dispatch police or guards to the location of the alarm.

ANNUNCIATOR PANELS ($43–$500)

The more complex alarm systems are generally designed for remote response. The alarm signal is transmitted to an annunciator panel that is constantly monitored. Each protected unit is displayed separately. A proprietary alarm system is one in which the annunciator panel is operated by guards furnished by the owner of the protected property. Large chain department stores will frequently operate a proprietary alarm system for all of their stores, as will many large industrial companies. In those instances, the firm will normally purchase central station alarm system equipment.

AUTOMATIC TELEPHONE DIALERS ($155–$500)

An automatic telephone dialer provides an alternative to a leased wire service. Two types are manufactured: tape dialers and digital dialers. A tape dialer responds to an signal from a sensor by dialing a specific telephone number and playing a recorded message that an emergency exists. Some units will dial more than one telephone number. A digital dialer, on the other hand, sends a coded electronic signal. The digital dialer requires a decoding system at the receiver terminal to convert the signal to a print-out of the subscriber's indentity or location. Many local jurisdictions have ordinances restricting the use of automatic dialers.

BATTERIES ($5–$100)

Most alarm systems incorporate standby battery power so that they can continue to operate during a power failure. Batteries for this use include the alkaline, mercury, nickel-cadmium, lead-acid, and solid gel types. Depending upon the individual alarm system, these batteries may be recharged constantly, removed periodically for recharging, or replaced periodically.

CENTRAL STATION ALARM SYSTEM EQUIPMENT ($100–$2500)

Central station systems are operated by guards furnished by the owner of the protected property or by private companies which make guard response services available to subscribers for a fee. When an alarm signal is received, the central station calls the police and may dispatch its own guard to the location of the alarm. If guard service is provided the subscriber normally furnishes the central station company with keys to the protected premises so that the guard can enter and/or admit the police to investigate the alarm.

Central station alarm systems usually include the capability to provide line supervision of the remote alarm system. This allows the guard to test the alarm system from the central station, and to test the circuit when an alarm is received to be sure that the signal is not a false alarm resulting from circuit trouble. In some cases, the customer's alarm system is turned off and on from the central station.

Alarm signals are normally transmitted to the remote location over leased telephone wires. The customer pays a connection charge and a monthly fee. There are a variety of options available to the central station operator which enable a single telephone line to be used for several different alarm systems. These include McCulloch-loop, multiplex, and frequency shift keying (FSK) systems. In addition, radio transmission equipment is also available.

Some local jurisdictions will permit alarm annunciators to be installed in the local police department, in which case the police respond directly to the alarm signal. This service is often provided only to financial institutions.

CONTROL UNITS ($20–$1000)

The switch sensors of an alarm system are wired to a control unit which represents the brain of an alarm system. It supplies the electrical power to the sensors and responds to the signal transmitted by a sensor when it is actuated. The control unit then actuates the alarm. One can connect sensors to provide different zones of protection; each room of a building might be a zone. It is also possible to have the exterior sensors as one zone, and various interior sensors as other zones. In multi-zone systems, one or more zones can be active while the others are turned off. A number of manufacturers make small battery-operated door and window switch sensors which transmit a low-power radio signal to the control unit when door or window movement is detected. These systems can be less expensive to install than those that use wire to connect the components. The batteries must be checked frequently, however, to be sure that the system is working.

ELECTRICAL SWITCH LOCKS ($1–$100)

An electrical switch lock uses an electrically operated mechanism to open a door bolt; it is also used in alarm systems.

EVENTS RECORDERS ($25–$500)

Many alarm systems include an events recorder, which makes a record of each alarm signal received by the central station equipment, both to keep track of over-all system performance, and as a means of verifying that response has been provided to all signals that have been received. An events recorder can also be used to monitor the opening and closing of the doors to protected areas.

PERSONAL ALARM TRANSMITTERS ($1–$50)

A personal alarm transmitter, or portable panic switch, is a low-power radio transmitter designed to enable a person to actuate his alarm system from his person. A businessman, for example, may wish to use a personal transmitter to provide alarm protection between his place of business and his parking lot, particularly if he personally carries cash receipts. Personal transmitters are also used by persons with heart or other medical problems, as a means of obtaining emergency medical assistance.

TRANSPONDERS ($250–$1000)

A transponder is sometimes built into an alarm system to enable its status to be verified from a remote location, such as a central station. At either random or periodic intervals, the transponder is interrogated by the central station. After the transponder has verified that the signal it received is from the proper source, it will send a coded reply. If the equipment at the central station recognizes the reply as a legitimate response, the system is considered functional.

Special Purpose Equipment

DECALS/LABELS ($1 or less)

It is frequently assumed that if a burglar knows that an alarm system is in use, he will avoid the protected premises and attack elsewhere. Decals and labels are, therefore, often displayed on protected premises. In addition, they are sometimes posted on completely unprotected premises, in the hope that the potential offender will believe that an alarm system is really there.

DOOR CORDS ($2–$50)

A door cord is used to connect sensors such as switches and window foil mounted on doors to an alarm system. Door cords are designed to withstand repeated flexing and prevent strain on electrical terminals.

DOOR/WINDOW ALARMS ($5–$48)

Self-contained door/window alarms are often battery-powered, include an integral audible alarm device, and can only be operated from inside the protected perimeter. Some, however, are equipped to transmit a low-power RF signal to a control box, and can be turned on and off from the outside.

HOUSEHOLD TIMERS ($5–$250)

Many homeowners use household timers that turn lights on and off when they are away. It is assumed that a potential burglar will avoid a home if it appears to be occupied.

PORTABLE AUDIBLE ALARM DEVICES ($4–$18)

A portable audible alarm device is used in a manner similar to a panic switch, but it is fully self-contained and is not part of an alarm system. It is either air or battery powered, and can be carried by an individual to summon assistance at any location.

VEHICLE ALARMS ($2–$185)

A vehicle alarm is designed to signal an alarm if someone attempts to break into an automobile, truck, or private aircraft. It usually uses the vehicle's power supply, although back-up power supplies are available. Most systems provide only a local alarm; however, some transmit a remote alarm signal.

MANUFACTURERS OF ALARM SYSTEM EQUIPMENT

ALARM GLASS

John Degorter, Inc.

ALERTING ANNUNCIATOR LIGHTS

Alarm Supply Co., Inc.
Bellaire Associates, Inc.
DuKane Corp.
Eico Electronic Instrument Co., Inc.
Federal Signal Corp.
Gard of Cleveland, Inc.
Mallory Distributor Products Co.
Mars Signal Light Co., Inc.
Mountain West Alarm Supply Co.
MRL, Inc.
North American Philips Corp.
Nutone
Protecto Alarm Sales
Smith & Wesson
Thomas Industries, Inc.

ANNUNCIATOR PANELS

A-1 Alarmatic Protective Systems, Inc.
Aerolite Electronics Corp.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
AMF Paragon, Inc.
Annandale, Inc.
Baldwin Electronics, Inc.
Best Lock Corp.
Brash Industries
Chambers Systems, Inc.
Christy Industries, Inc.
Conrac Corp.
Continental Instruments Corp.
Detex Corp.
Door Alarm Devices Corp.
Doppler Corp.
Emergency Products Corp.
ESB, Inc.
Honeywell, Inc.
Walter Kidde and Co., Inc.
Ledex, Inc.
Mast-Keystone Development Co.
Mosler Safe Co.
Motorola, Inc.
Mountain West Alarm Supply Co.
MRL, Inc.
National Security Systems, Inc.
Pinkerton Electro Security Co.
Potter Electric Signal Co.
Protection Products, Inc.
Sentry Technology, Inc.
Von Duprin, Inc.

AUDIBLE ALARM HOUSINGS

A-1 Alarmatic Protective Systems, Inc.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Benjamin Electric Mfg. Co.
Controllor Systems Corp.
Eico Electronic Instrument Co., Inc.
Emergency Products Corp.
A.W. Fruh and Co.
GC Electronics
Mountain West Alarm Supply Co.
MRL, Inc.
Napco Security Systems, Inc.
Protecto Alarm Sales
Remote Control Devices Corp.
Security Devices, Inc.
Sentrol, Inc.
Silent Knight Security Systems
Von Duprin, Inc.

AUTOMATIC TELEPHONE DIALERS

A-1 Alarmatic Protective Systems, Inc.
Acron Corp.
Adcor Electronics
Alarm Controls Corp.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
American Security Products, Inc.
Bowmar Instrument Corp.
Christy Industries, Inc.
Controllor Systems Corp.
Delta Products, Inc.
Detectron Security Systems, Inc.
Dytron, Inc.
Eaton Corp.
Eico Electronic Instrument Co., Inc.
Gard of Cleveland, Inc.
Lake Jackson Industries, Inc.
Minnesota Mining and Mfg. Co.
Mosler Safe Co.
Mountain West Alarm Supply Co.
Napco Security Systems, Inc.
Phillips Enterprises
Protecto Alarm Sales
Qonaar Security Systems, Inc.
Refrigeration Alarm Systems Corp.

Shepard Electronics
Sigma Three
Silent Knight Security Systems
Telectro Systems, Inc.
Tie Security Systems
Westinghouse Security Systems, Inc.
Yorklite Electronics, Inc.

BATTERIES

A-1 Alarmatic Protective Systems, Inc.
Adcor Electronics
Aerolite Electronics Corp.
Alarm Controls Corp.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
Alexander Mfg. Co.
Bright Star Industries, Inc.
Conrac Corp.
Continental Instruments Corp.
Controllor Systems Corp.
Detectron Security Systems, Inc.
Doppler Corp.
Elpower Corp.
A.W. Fruh and Co.
Gates Energy Products, Inc.
Herbach & Rademan, Inc.
King Research Labs.
Mallory Distributor Products Co.
Monaco Enterprises, Inc.
Mountain West Alarm Supply Co.
Mule Battery Co.
Napco Security Systems, Inc.
Nife, Inc.
Nutone
Omni Spectra, Inc.
Potter Electric Signal Co.
Power-Sonic Corp.
Protection Products, Inc.
Protecto Alarm Sales
Racon, Inc.
Ratelco, Inc.
Remote Control Devices Corp.
Sentrol, Inc.
Silent Knight Security Systems
Sontrix, Inc.
Streamlight, Inc.
Thomas Industries, Inc.
Yorklite Electronics, Inc.

BELLS

A-1 Alarmatic Protective Systems, Inc.
Aerolite Electronics Corp.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Alarm Supply Co., Inc
Auto-Matic Products Co.
Benjamin Electric Mfg. Co.
C.A. Briggs Co.
Detectron Security Systems, Inc.
Eaton Corp.
Edmund Scientific Co.
Eico Electronic Instrument Co., Inc.
Emergency Products Corp.
Federal Signal Corp.
Flashguard, Inc.
A.W. Fruh and Co.
GC Electronics
Heath Co.
Herbach & Rademan, Inc.
Walter Kidde and Co., Inc.
Mallory Distributor Products Co.
Monaco Enterprises, Inc.
Mountain West Alarm Supply Co.
MRL, Inc.
Nutone
Phillips Enterprises
Photobell Co., Inc.
Potter Electric Signal Co.
Protecto Alarm Sales
Radio Shack
Remote Control Devices Corp.
Rittenhouse Operations
Security Devices, Inc.
Sentrol, Inc.
Thomas Industries, Inc.
Trine Mfg. Corp.
Von Duprin, Inc.
Worner Electronic Devices, Inc.
Yorklite Electronics, Inc.

BURGLAR-PROOF SCREENS

Imperial Screen Co., Inc.
Kane Mfg. Corp.
Potter Electric Signal Co.
Protecto Alarm Sales

BUZZERS

Benjamin Electric Mfg. Co.
C.A. Briggs Co.
Emergency Products Corp.
ESB, Inc.
A.W. Fruh and Co.
Mountain West Alarm Supply Co.
MRL, Inc.

Radio Shack
Trine Mfg. Corp.

CAPACITANCE PROXIMITY DETECTORS

Alarm Device Mfg. Co.
Emergency Products Corp.
A.W. Fruh and Co.
Honeywell, Inc.
Infinetics, Inc.
Monaco Enterprises, Inc.
Mosler Safe Co.
Mountain West Alarm Supply
North American Philips Corp.
Photobell Co., Inc.
Scientific Technology, Inc.
Security Devices, Inc.
Silent Watchman Corp.
Yorklite Electronics, Inc.

CENTRAL STATION ALARM SYSTEM EQUIPMENT

Aerolite Electronics Corp.
Alarm Device Mfg. Co.
Alarm Equipment Co. (ALECO)
Alarm Supply Co., Inc.
American Multiplex Systems, Inc.
Annandale, Inc.
Baldwin Electronics, Inc.
Bell & Howell Communications Co.
Brash Industries
Chambers Systems, Inc.
Conrac Corp.
Continental Instruments Corp.
Datacom, Inc.
Eaton Corp.
Emergency Products Corp.
Esterline Security Systems
Honeywell, Inc.
KMS Technology Center
Lake Jackson Industries, Inc.
Ledex, Inc.
Monaco Enterprises, Inc.
Moore Systems, Inc.
Mosler Safe Co.
Motorola, Inc.
National Security Systems, Inc.
North American Philips Corp.
Potter Electric Signal Co.
Security Devices, Inc.
Sentry Technology, Inc.
Signatron, Inc.
Tocom, Inc.
Wackenhut Electronics, Inc.
Wood-Ivey Systems Corp.
Yorklite Electronics, Inc.

CONTROL UNITS

A-1 Alarmatic Protective Systems, Inc.
Acron Corp.
Adcor Electronics
Aerolite Electronics Corp.
Alarm Controls Corp.
Alarm Device Mfg. Co.
Alarm Equipment Co.
Alarm Lock Corp.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
American Multiplex Systems, Inc.
American Security Products, Inc.
AMF Paragon, Inc.
Annandale, Inc.
Auto-Matic Products Co.
Baldwin Electronics, Inc.
Benjamin Electric Mfg. Co.
Bowmar Instrument Corp.
Brash Industries
Chambers Systems, Inc.
Conrac Corp.
Continental Instruments Corp.
Controllor Systems Corp.
Contronic Controls, Ltd.
H.W. Crane Co.
Delta Products, Inc.
Detectron Security Systems, Inc.
Doppler Corp.
Eaton Corp.
Eberling's Alarm Co.
Eco Security Corp.
Eico Electronic Instrument Co., Inc.
Elan Industries, Inc.
Emergency Products Corp.
ESB, Inc.
Esterline Security Systems
Federal Signal Corp.
Flashguard, Inc.
Folger Adam Co.
A.W. Fruh and Co.
Gard of Cleveland, Inc.
General Binding Corp.
Guard/Aware, Inc.
Heath Co.
Herbach & Rademan, Inc.
Honeywell, Inc.
Infinetics, Inc.
Integrated Electronics, Ltd.
Walter Kidde and Co., Inc.

King Research Labs.
Lake Jackson Industries, Inc.
Laser Systems Corp.
Lassen Electronics Corp.
Ledex, Inc.
Linear Corp.
Mallory Distributor Products Co.
Minnesota Mining and Mfg. Co.
Monaco Enterprises, Inc.
Mosler Safe Co.
Mountain West Alarm Supply Co.
MRL, Inc.
Napco Security Systems, Inc.
National Security Systems, Inc.
Novar Electronics Corp.
Nutone
Phillips Enterprises
Potter Electric Signal Co.
Pro-Com Security Systems
Protection Products, Inc.
Protecto Alarm Sales
Proximity Devices, Inc.
Quasar Microsystems
Qonaar Security Systems, Inc.
Radiation Systems, Inc.
Remote Control Devices Corp.
Rittenhouse Operations
Sargent & Greenleaf, Inc.
Scientific Technology, Inc.
Security Devices, Inc.
Security Instruments, Inc,
Security Technology Systems
Se-Kure Controls, Inc.
Sentrol, Inc.
Sentry Technology, Inc.
SGM Corp.
Shepard Electronics
Sigma Three
Signatron, Inc.
Silent Knight Security Systems
Sontrix, Inc.
Thomas Industries, Inc.
Tie Security Systems
Transcience Industries, Inc.
Universal Sentry Systems
Von Duprin, Inc.
Westinghouse Security Systems, Inc.
Worner Electronic Devices, Inc.
Yorklite Electronics, Inc.

DECALS/LABELS

Alarm Device Mfg. Co.
Auto-Matic Products Co.
Carol Products Co.
Controllor Systems Corp.
John DeGroot
Edmund Scientific Co.
Eico Electronic Instrument Co., Inc.
A.W. Fruh and Co.
Herbach & Rademan, Inc.
Mallory Distributor Products Co.
Mountain West Alarm Supply Co,
MRL, Inc.
Rittenhouse Operations

DOOR CORDS

A-1 Alarmatic Protective Systems, Inc.
Aerolite Electronics Corp.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
Eico Electronic Instrument Co., Inc.
Emergency Products Corp.
A.W. Fruh and Co.
GC Electronics
Herbach & Rademan, Inc.
Walter Kidde and Co., Inc.
Monaco Enterprises, Inc.
Mountain West Alarm Supply Co.
Nutone
Potter Electric Signal Co.
Protection Products, Inc.
Protecto Alarm Sales

DOOR/WINDOW ALARMS

Aerolite Electronics Corp.
Aimsco, Inc.
Alarm Controls Corp.
Alarm Lock Corp.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
Auth Electric Co., Inc.
Badger-Powhatan
Best Lock Corp.
Continental Instruments Corp.
Controllor Systems Corp.
Detex Corp.
Door Alarm Devices Corp.
Eico Electronic Instrument Co., Inc.
ESB, Inc.
Falcon Safety Products, Inc.
Flashguard, Inc.
Gard of Cleveland, Inc.
GC Electronics
Hardware Sales and Supply Co.
Integrated Electronics, Ltd.

Lassen Electronics Corp.
Linear Corp.
Loxem Mfg. Corp.
Lustre Line Products
Minnesota Mining and Mfg. Co.
Motorola, Inc.
Mountain West Alarm Supply Co.
Napco Security Systems, Inc.
Phillips Enterprises
Photobell Co., Inc.
Protecto Alarm Sales
Radio Shack
Rittenhouse Operations
S and D Industries, Inc.
Sargent and Greenleaf, Inc.
Shepard Electronics
Silent Knight Security Systems
Silent Watchman Corp.
Thomas Industries, Inc.
Trine Mfg. Corp.
United Security Products, Inc.
Westinghouse Security Systems, Inc.

ELECTRICAL SWITCH LOCKS

A-1 Alarmatic Protective Systems, Inc.
Aerolite Electronics Corp.
Aimsco, Inc.
Alarm Device Mfg. Co.
Alarm Lock Corp.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
Auto-Matic Products Co.
Best Lock Corp.
Chicago Lock Co.
H.W. Crane Co.
Detectron Security Systems, Inc.
Eaton Corp.
Eico Electronic Instrument Co., Inc.
Emergency Products Corp.
Folger Adam Co.
Fort Lock Corp.
A.W. Fruh and Co.
GC Electronics
Guard/Aware, Inc.
Hardware Sales and Supply Co.
Herbach & Rademan, Inc.
H. Hoffman Co.
Illinois Lock Co.
Kolin Industries, Inc.
Mallory Distributor Products Co.
Medeco Security Locks, Inc.
Monaco Enterprises, Inc.
Mosler Safe Co.
Mountain West Alarm Supply Co.
Nutone
Pinkerton Electro Security Co.
Potter Electric Signal Co.
Protecto Alarm Sales
Remote Control Devices Corp.
Rittenhouse Operations
Security Devices, Inc.
Sentrol, Inc.
Silent Knight Security Systems
Thomas Industries, Inc.
Trine Mfg. Corp.
Von Duprin, Inc.
Yorklite Electronics, Inc.

EVENTS RECORDERS

Conrac Corp.
Detex Corp.
Eaton Corp.
GBC Closed Circuit TV Corp.
Impossible Electronic Techniques, Inc.
Javelin Electronics
Mosler Safe Co.
National Security Systems, Inc.
Odetics
Potter Electric Signal Co.
Security Devices, Inc.
Sentry Technology, Inc.
Silent Knight Security Systems
Silent Watchman Corp.

HOLDUP BUTTONS/SWITCHES/BARS

A-1 Alarmatic Protective Systems, Inc.
Alarm Device Mfg. Co.
Alarm Products International, Inc
Alarm Supply Co., Inc.
Controllor Systems Corp.
Eaton Corp.
Emergency Products Corp.
ESB, Inc.
A.W. Fruh and Co.
Gard of Cleveland, Inc.
General Nucleonics, Inc.
Walter Kidde and Co., Inc.
Linear Corp.
Monaco Enterprises, Inc.
Mosler Safe Co.
Mountain West Alarm Supply Co.
Napco Security Systems, Inc.
Potter Electric Signal Co.
Protecto Alarm Sales
Qonaar Security Systems, Inc.
Silent Knight Security Systems

Tapeswitch Corp. of America
Transcience Industries, Inc.
United Security Products, Inc.

HORNS

A-1 Alarmatic Protective Systems, Inc.
Aerolite Electronics Corp.
Alarm Controls Corp.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Auto-Matic Products Co.
Benjamin Electric Mfg. Co.
C.A. Briggs Co.
Continental Instruments Corp.
Delta Electric
Delta Products, Inc.
Eco Security Corp.
Edmund Scientific Co.
Eico Electronic Instrument Co., Inc.
Electro-Voice, Inc.
ESB, Inc.
Falcon Safety Products, Inc.
Federal Signal Corp.
A.W. Fruh and Co.
Gard of Cleveland, Inc.
GC Electronics
Guard/Aware, Inc.
Herbach & Rademan, Inc.
Mallory Distributor Products Co.
Minnesota Mining and Mfg. Co.
Monaco Enterprises, Inc.
Mountain West Alarm Supply Co.
MRL, Inc.
Nutone
Photobell Co., Inc.
Potter Electric Signal Co.
Protecto Alarm Sales
Radio Shack
Rittenhouse Operations
Technology Associates
Thomas Industries, Inc.
Trine Mfg. Corp.
United Security Products, Inc.
Von Duprin, Inc.

HOUSEHOLD TIMERS

Alarm Equipment Co.
Alarm Supply Co., Inc.
Eico Electronic Instrument Co., Inc.
Federal Signal Corp.
Linear Corp.
Mallory Distributor Products Co.
Mountain West Alarm Supply Co.
North American Philips Corp.
Novar Electronics Corp.
Sentrol, Inc.
Silent Knight Security Systems

INFRARED MOTION DETECTORS

Advanced Devices Laboratory, Inc.
Arrowhead Enterprises, Inc.
Barnes Engineering Co.
Detection Systems, Inc.
Dynacom
Eaton Corp.
Javelin Electronics
Laser Systems Corp.
Mountain West Alarm Supply Co.
North American Philips Corp.
Photobell Co., Inc.
Potter Electric Signal Co.
Protection Products, Inc.
Protecto Alarm Sales
Raytek
Scientific Technology, Inc.
Silent Watchman Corp.
Worner Electronic Devices, Inc.

METALLIC FOIL

A-1 Alarmatic Protective Systems, Inc.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
American Security Products, Inc.
Detectron Security Systems, Inc.
Eaton Corp.
Eico Electronic Instrument Co., Inc.
Emergency Products Corp.
A.W. Fruh and Co.
GC Electronics
Herbach & Rademan, Inc.
Hobby Hill, Inc.
Mallory Distributor Products Co.
Monaco Enterprises, Inc.
Mountain West Alarm Supply Co.
Potter Electric Signal Co.
Protecto Alarm Sales
Radio Shack
Remote Control Devices Corp.
Security Instruments, Inc.

MICROWAVE MOTION DETECTORS

Advanced Devices Laboratory, Inc.
Alarm Supply Co., Inc.
Detectron Security Systems, Inc.
Eberling's Alarm Co.

Mountain West Alarm Supply Co.
Omni Spectra, Inc.
Potter Electric Signal Co.
Protection Products, Inc.
Racon, Inc.
Solfan Security Systems

PERSONAL ALARM TRANSMITTERS

A-1 Alarmatic Protective Systems, Inc.
Acron Corp.
Alarm Controls Corp.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
Bell & Howell Communications Co.
Best Lock Corp.
Controllor Systems Corp.
H.W. Crane Co.
Doppler Corp.
Esterline Security Systems
A.W. Fruh and Co.
Gard of Cleveland, Inc.
GC Electronics
General Nucleonics, Inc.
Herbach & Rademan, Inc.
Integrated Electronics, Ltd.
Linear Corp.
Mountain West Alarm Supply Co.
Napco Security Systems, Inc.
National Security Systems, Inc.
North American Philips Corp.
Phillips Enterprises
Protecto Alarm Sales
Qonaar Security Systems, Inc.
Radiation Systems, Inc.
Remote Control Devices Corp.
Security Devices, Inc.
Silent Knight Security Systems
Transcience Industries, Inc.

PHOTOELECTRIC CONTROLS

Alarm Products International, Inc.
Edmund Scientific Co.
Leviton Mfg. Co., Inc.
Mountain West Alarm Supply Co.
Protecto Alarm Sales

PHOTOELECTRIC DETECTORS

A-1 Alarmatic Protective Systems, Inc.
Aerolite Electronics Corp.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
AMF Paragon, Inc.
Arrowhead Enterprises, Inc.
Continental Instruments Corp.
Contronic Controls, Ltd.
Detection Systems, Inc.
Dynacom
Emergency Products Corp.
A.W. Fruh and Co.
General Electric Co.
Herbach & Rademan, Inc.
Walter Kidde and Co., Inc.
Laser Systems Corp.
Monaco Enterprises, Inc.
Mosler Safe Co.
Mountain West Alarm Supply Co.
Napco Security Systems, Inc.
North American Philips Corp.
Photobell Co., Inc.
Protecto Alarm Sales
Qonaar Security Systems, Inc.
Radio Shack
Scientific Technology, Inc.
Security Devices, Inc.
Worner Electronic Devices, Inc.

PORTABLE ALARM DEVICES

Falcon Safety Products, Inc.

PRESSURE MAT SWITCHES

A-1 Alarmatic Protective Systems, Inc.
Aerolite Electronics Corp.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
Auto-Matic Products Co.
Bowmar Instrument Corp.
Clark Door Co., Inc.
Controllor Systems Corp.
H.W. Crane Co.
Dart Alarms, Inc.
Eaton Corp.
Eico Electronic Instrument Co., Inc.
A.W. Fruh and Co.
GC Electronics
Herbach & Rademan, Inc.
Monaco Enterprises, Inc.
Mountain West Alarm Supply Co.
MRL, Inc.
Nutone
Phillips Enterprises
Protecto Alarm Sales
Recora Co., Inc.
Remote Control Devices Corp.

Rittenhouse Operations
Robot Industries, Inc.
Se-Kure Controls, Inc.
Sentrol, Inc.
Shepard Electronics
Tapeswitch Corp. of America
Trine Mfg. Corp.
United Security Products, Inc.
Westinghouse Security Systems, Inc.
Yorklite Electronics, Inc.

PULL/TRIP TRAP SWITCHES

A-1 Alarmatic Protective Systems, Inc.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
Auto-Matic Products Co.
Emergency Products Corp.
A.W. Fruh and Co.
GC Electronics
Herbach & Rademan, Inc.
Honeywell, Inc.
Infinetics, Inc.
Monaco Enterprises, Inc.
Mountain West Alarm Supply Co.
Potter Electric Signal Co.
Protecto Alarm Sales
Remote Control Devices Corp.
Trine Mfg. Corp.

SIRENS

A-1 Alarmatic Protective Systems, Inc.
Aerolite Electronics Corp.
Alarm Controls Corp.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
American Security Products, Inc.
Artisan Electronics Corp.
Auto-Matic Products Co.
Bellaire Associates, Inc.
Benjamin Electric Mfg. Co.
C.A. Briggs Co.
Controllor Systems Corp.
H.W. Crane Co.
Delta Products, Inc.
Detectron Security Systems, Inc.
Doppler Corp.
Dunbar-Nunn Corp.
Eico Electronic Instrument Co., Inc.
Electro-Voice, Inc.
Emergency Products Corp.
Federal Signal Corp.
A.W. Fruh and Co.
Gard of Cleveland, Inc.
GC Electronics
Guard/Aware, Inc.
Herbach & Rademan, Inc.
Kolin Industries, Inc.
Lassen Electronics Corp.
Linear Corp.
Mallory Distributor Products Co.
Mars Signal Light Co., Inc.
Master Lock Co.
Monaco Enterprises, Inc.
Mountain West Alarm Supply Co.
MRL, Inc.
Napco Security Systems, Inc.
Phillips Enterprises
Photobell Co., Inc.
Pinkerton Electro Security Co.
Potter Electric Signal Co.
Protection Products, Inc.
Protecto Alarm Sales
Qonaar Security Systems, Inc.
Radio Shack
Remote Control Devices Corp.
Rittenhouse Operations
Se-Kure Controls, Inc.
Sentrol, Inc.
Sentry Sonic Mfg. Co.
Shepard Electronics
Silent Knight Security Systems
Smith and Wesson
Yorklite Electronics, Inc.

SOUND MONITORING SYSTEMS

Acron Corp.
Ashby & Associates
Chambers Systems, Inc.
Eaton Corp .
Honeywell, Inc.
Miles Reproducer Co., Inc.
Quasar Microsystems
Technical Communications Corp.

SOUND SENSING UNITS

Acron Corp.
Alarm Supply Co., Inc.
Chambers Systems, Inc.
DuKane Corp.
Fargo Co.
Honeywell, Inc.
King Research Labs.
MB Associates
Miles Reproducer Co., Inc.

Monaco Enterprises, Inc.
Mosler Safe Co.
Novar Electronics Corp.
Potter Electric Signal Co.
Quasar Microsystems
Security Devices, Inc.
Security Technology Systems

STRESS DETECTORS

Detectron Security Systems, Inc.
Security Devices, Inc.

SWITCH SENSORS

A-1 Alarmatic Protective Systems, Inc.
Aerolite Electronics Corp.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
American Security Products, Inc.
Auto-Matic Products Co.
Benjamin Electric Mfg. Co.
Bowmar Instrument Corp.
Continental Instruments Corp.
Controllor Systems Corp.
H.W. Crane Co.
Detectron Security Systems, Inc.
Detex Corp.
Eaton Corp.
Eico Electronic Instrument Co., Inc.
Emergency Products Corp.
ESB, Inc.
A.W. Fruh and Co.
GC Electronics
Heath Co.
Herbach & Rademan, Inc.
Walter Kidde and Co., Inc.
Linear Corp.
Mallory Distributor Products Co.
Monaco Enterprises, Inc.
Mosler Safe Co.
Mountain West Alarm Supply Co.
MRL, Inc.
Napco Security Systems, Inc.
North American Philips Corp.
Nutone
Potter Electric Signal Co.
Productron
Protecto Alarm Sales
Qonaar Security Systems, Inc.
Radio Shack
Remote Control Devices Corp.
Rittenhouse Operations
Security Instruments, Inc.
Se-Kure Controls, Inc.
Sentrol, Inc.
Silent Knight Security Systems
Tapeswitch Corp. of America
Thomas Industries, Inc.
Trine Mfg. Corp.
United Security Products, Inc.
Von Duprin, Inc.
Westinghouse Security Systems, Inc.
Yorklite Electronics, Inc.

TRANSPONDERS

Esterline Security Systems
Hoffman Navcom Systems
National Security Systems, Inc.

ULTRASONIC MOTION DETECTORS

A-1 Alarmatic Protective Systems, Inc.
Advanced Devices Laboratory, Inc.
Aeritech Corp.
Aerolite Electronics Corp.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
Citadel Products, Ltd.
Conrac Corp.
Contronic Controls, Ltd.
Delta Products, Inc.
Detection Systems, Inc.
Detectron Security Systems, Inc.
Eaton Corp.
Edmund Scientific Co.
Emergency Products Corp.
A.W. Fruh and Co.
Gard of Cleveland, Inc.
GC Electronics
Heath Co.
Herbach & Rademan, Inc.
Walter Kidde and Co., Inc.
Mallory Distributor Products Co.
Master Lock Co.
Minnesota Mining and Mfg. Co.
Monaco Enterprises, Inc.
Mosler Safe Co.
Mountain West Alarm Supply Co.
Potter Electric Signal Co.
Protection Products, Inc.
Protecto Alarm Sales
Qonaar Security Systems, Inc.
Radio Shack
Rittenhouse Operations
Security Devices, Inc.
Security Technology Systems

Sentry Sonic Mfg. Co.
Shepard Electronics
Sontrix, Inc.
Unisec, Inc.

VEHICLE ALARMS

A-1 Alarmatic Protective Systems, Inc.
Aerolite Electronics Corp.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
Auto-Matic Products Co.
Babaco Alarm Systems, Inc.
Controllor Systems Corp.
Doppler Corp.
Edmund Scientific Co.
Eico Electronic Instrument Co., Inc.
Emergency Products Corp.
A.W. Fruh and Co.
Gard of Cleveland, Inc.
GC Electronics
Hardware Sales and Supply Co.
Heath Co.
Herbach & Rademan, Inc.
Kolin Industries, Inc.
Mallory Distributor Products Co.
Mountain West Alarm Supply Co.
Potter Electric Signal Co.
Protection Products, Inc.
Protecto Alarm Sales
Radio Shack
Remote Control Devices Corp.
Se-Kure Controls, Inc.
Sentry Sonic Mfg. Co.
Sigma Three
Smiths Industries, Inc.

VIBRATION DETECTORS

A-1 Alarmatic Protective Systems, Inc.
Aeritech Corp.
Aerodyne Controls Corp.
Aerolite Electronics Corp.
Alarm Device Mfg. Co.
Alarm Equipment Co.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
Datacom, Inc.
Eaton Corp.
Eico Electronic Instrument Co., Inc.
Emergency Products Corp.
A.W. Fruh and Co.
Honeywell, Inc.
Lassen Electronics Corp.
Mast-Keystone Development Co.
Monaco Enterprises, Inc.
Mosler Safe Co.
Mountain West Alarm Supply Co.
Potter Electric Signal Co.
Protecto Alarm Sales
Technology Associates
Westinghouse Electronic Corp.

BUSINESS AND INDUSTRY EQUIPMENT

Commercial establishments are faced with the problem that whatever promotes the sale of merchandise also creates a temptation for the dishonest customer. Displays of merchandise are essential, and the customer must be free to move about the display area and have reasonable freedom to examine items of interest. The sales volume is generally proportional to the number of shoppers who visit a store. Obviously, as the number of customers increases, it is not possible to deal with them personally. Shoplifting is a major problem of any business, for it is not possible to observe the actions of all the customers. In addition, merchandise must be transported between manufacturers, warehouses, retail outlets and customers and a significant quantity of merchandise is stolen from such shipments.

CARGO SEALS ($0.05–$3.00)

Industrial firms, and to some extent retail businesses, are faced with the problems of protecting shipments of merchandise from theft. Cargo seals provide assurance to commercial freight haulers that their loads of merchandise have not been tampered with during transit.

CARGO THEFT/TRACKING SYSTEMS (rental rates from $125–$1140 annually)

There are a number of cargo theft/tracking systems for protecting shipments of merchandise. Truck-theft alarms signal an alarm whenever the vehicle is entered or moved, unless the ignition key has been properly used to deactivate the alarm system. Anti-hyjack systems are normally independent of the driver's control. These systems will automatically shut off the truck ignition and signal an alarm if the travel time or mileage of the truck exceeds a preset amount. Such systems are most effective if the fact that the driver has no control over the system is known to the potential thief. Tracking systems which employ transponders that are loaded with the cargo can be used to track the movement of a truck or its cargo.

CHECK-WRITER CAMERAS ($600–$2000)

A check-writer camera retains a permanent record of an individual who pays for merchandise by check. Some of these systems photograph both the customer and his check, while others photograph only the individual. In addition to verifying a customer's identity from his driver's license or other identification card, the use of a check-writer camera will help to deter a customer from writing a bad check. If a bad check is cashed, the photographic record will aid in apprehension and prosecution.

DUMMY CAMERAS ($75–$150)

A dummy camera is sometimes used along with a real closed circuit television (CCTV) system to deter criminal action. These are available as fixed units or on movable mounts. Although businesses have used dummy cameras without having a real CCTV system, it is difficult to assess the real benefit of such use.

EDUCATIONAL FILMS ($50–$225; also for rent)

Many businesses and industrial firms establish security training programs for their employees. In addition, community groups frequently discuss security problems and local police departments speak to citizen groups on the topic of security. A number of films are available for training and education.

LIGHTING EQUIPMENT ($10–$1125)

Adequate lighting is essential not only for security purposes but for safety. In addition to lights for the exterior areas of buildings, sidewalks, parking lots, and storage areas, there are emergency lighting systems which light automatically when the main power supply is interrupted. Emergency lights may be powered by dry cells or by small battery units that are kept fully charged by line voltage. Auxiliary standby power generators can be used to supply electrical power to emergency lights and other critical equipment.

LOW-LIGHT VISUAL AIDS ($1500–$2500 and up)

Passive night vision devices produce visible images by the amplification of ambient light, and are used for nighttime surveillance. Active night vision devices differ in that they supply supplemental light, usually infrared, that is not visible to the individual being observed. Photographs can be taken, and a variety of lenses are available to permit observation at various distances.

METAL DETECTORS ($100–$2500)

Metal detectors are widely used in airport security systems. These devices are available as walk-through installations, or may be handheld. There are two types: one detects only ferrous metals, while the other detects all metals. In both cases, the detector responds to small electric currents induced in coils when metal moves past them. In addition to use as weapons detectors, these devices can be used to detect stolen metal objects hidden in clothing and by libraries to detect the unauthorized removal of books containing metal strips.

OFFICE EQUIPMENT LOCKS ($4–$100)

Office equipment locks include locks to prevent the unauthorized use of telephones and locks to fasten typewriters, calculators, or other portable equipment to desks and working surfaces.

OPTICAL SURVEILLANCE SYSTEMS ($25–$2500)

An optical surveillance system is useful in business and industry to monitor protected areas and the actions of customers and employees. Both photographic systems and closed-circuit television (CCTV) systems are available.

The photographic systems employ either still cameras which take a series of pictures on demand or motion picture cameras which take pictures slowly (one per second to one per minute). In both cases, a variety of lenses are available, as are numerous actuating devices. These cameras are most often used by small businesses and financial institutions to obtain pictures during holdups.

CCTV systems are widely used in department stores to observe customers and in industry to monitor loading docks, storage areas, etc. The CCTV systems require that someone watch the monitor; a video tape recorder can be used to record any event that is observed. If more than one TV camera is used, the system can include a separate monitor for each camera, or a single monitor can be used to view the signals from the various cameras one at a time. In such cases, a video switch unit will be required.

CCTV systems can include a variety of remote control capabilities. The camera need not be fixed, but can be mounted on a pan-and-tilt platform which enables the operator to aim the camera anywhere he desires. The camera can be equipped with a remote-control zoom lens to allow the operator to obtain either close-up pictures or to observe a large area.

PORTABLE-ITEM SHOPLIFTING TAGS (A custom product)

A portable-item shoplifting tag is designed to protect individual items of merchandise. A tiny printed circuit embedded in a plastic wafer, or a magnetized strip is attached to the item. It is removed from the item by the cashier at the time of sale. If merchandise containing a shoplifting tag is removed from the store, the detection system at the door actuates an alarm to alert store personnel.

POSTER/PAYCHECK INSERTS (Price dependent upon qualities and options)

Business and industry can maintain employee awareness of security problems and practices through the use of poster/paycheck inserts.

SHOPLIFTING CIRCUITS ($20–$200)

A shoplifting circuit uses wire which is strung through the handles of such items as portable television sets and irons to protect the merchandise. The customer has reasonable freedom to handle the items. However, if he attempts to break the wire or move an item so far as to pull the wire from its connection, an alarm is actuated to alert the store personnel.

TELEPHONE SCRAMBLERS ($100–$2500)

If the nature of telephone conversations is such that one must be sure that the discussion is not intercepted by a third party, a telephone scrambler can be used. This equipment will scramble the transmitted signal and unscramble the received signal.

VIDEO SWITCHES ($50–$250)

A video switch makes possible the viewing of signals from multiple CCTV cameras on a single monitor, one at a time.

WAFER SWITCHES ($0.25–$3.95)

A wafer switch is essentially a miniature pressure mat. When an item of the proper weight is placed upon one of these switches, its contacts are closed and an alarm circuit is completed. If the item is removed from the switch, an alarm signal is actuated. These switches are easily concealed and do not interfere with the attractiveness of a display; they are often used to protect items in museums.

WATCHCLOCK SYSTEMS ($50–$75)

Many firms supplement their alarm systems by a routine inspection of the premise by guards. A watchclock is carried by guards as he makes his rounds. A key located at each stop is inserted into the watchclock, making a permanent record of the time the guard visited each station.

CARGO SEALS

E.J. Brooks Co.
Kwikset Locksets
Stoffel Seals Corp.
Tyden Seal Co.
Viking Corp.

CARGO THEFT/TRACKING SYSTEMS

Babaco Alarm Systems, Inc.
Hoffman Navcom Systems
Magnetometric Devices, Inc.
National Security Systems, Inc.
Se-Kure Controls, Inc.
Wackenhut Electronics, Inc.

CHECK-WRITER CAMERAS

Dressen-Barnes Electronics Corp.
Filmdex Chex System, Inc.
Photo-Security Systems, Inc.
Regiscope Corp. of America
Ultra-Violet Products, Inc.

DUMMY CAMERAS

Carol Products Co.
Dressen-Barnes Electronics Corp.
Dynacom
GBC Closed Circuit TV Corp.
Herbach & Rademan, Inc.
Javelin Electronics
Mountain West Alarm Supply Co.
Protecto Alarm Sales
Se-Kure Controls, Inc.
Fred Silver and Co.

EDUCATIONAL FILMS

Highway Safety Foundation, Inc.
Loss Prevention Diagnostics, Inc.
Charles S. MacCrone Productions
Motorola, Inc.
National Educational Media, Inc.

LIGHTING EQUIPMENT

Aimsco, Inc.
Elan Industries, Inc.
Emergency Lighting and Systems, Inc.
Holophane Emergency Lighting Products
Javelin Electronics
Novar Electronics Corp.
Protection Products, Inc.
Seastrom Mfg. Co., Inc.
Se-Kure Controls, Inc.
Standby Systems, Inc.
Tork Time Controls, Inc.
Ultra-Violet Products, Inc.

LOW-LIGHT VISUAL AIDS

Aspheronics, Inc.
Astrophysics Research Corp.
Boeing Electronics
Dyna-Vision International
FJW Industries
Gencom Div., Varian/EMI
Javelin Electronics
Pacific Optical
Quasar Microsystems
Sierra Scientific Corp.
Smith and Wesson
Varo, Inc.

METAL DETECTORS

Infinetics, Inc.
RFL Industries, Inc.
Robot Industries, Inc.

OFFICE EQUIPMENT LOCKS

Aimsco, Inc.
Amerace Corp.
APC, Inc.
Architectural Hardware Co.
Bolen Industries, Inc.
Central Specialities Co.
Corde Locking Systems
Eaton Corp.
Franklin Lock and Pulley Mfg. Co.
Greenwald Industries, Inc.
Hardware Sales and Supply Co.
H. Hoffman Co.
Loxem Mfg. Corp.
Mountain West Alarm Supply Co.
S. Parker Hardware Mfg. Corp.
Safeguard Coin Box, Inc.
Se-Kure Controls, Inc.

OPTICAL SURVEILLANCE SYSTEMS

A-1 Alarmatic Protective Systems, Inc.
Alarm Device Mfg. Co.
Alarm Products International, Inc.
Alarm Supply Co., Inc.
Carol Products Co.
Coleman Systems
Dressen-Barnes Electronics Corp.
Dynacom

Dyna-Vision International
Eastman Kodak Co.
Edmund Scientific Co.
Electrohome, Ltd.
Fargo Co.
Filmdex Chex System, Inc.
GBC Closed Circuit TV Corp.
Gencom Div., Varian/EMI
General Electrodynamics Corp.
General Safeguard Systems, Inc.
Hager Control Systems
Karl Heitz, Inc.
Herbach & Rademan, Inc.
Honeywell, Inc.
Impossible Electronic Techniques, Inc.
Javelin Electronics
Lenzar Optics Corp.
Monaco Enterprises, Inc.
Mosler Safe Co.
Motorola, Inc.
Mountain West Alarm Supply Co.
Odetics
Panasonic Co.
Protection Products, Inc.
Raven Electronics Corp.
Sanyo Electric, Inc.
SC Electronics, Inc.
Security Resources
Se-Kure Controls, Inc.
Sierra Scientific Corp.
Fred Silver and Co.
Telemation, Inc.
Vicon Industries, Inc.
Visual Methods, Inc.
Vizitrak Corp.
Westinghouse Electronic Corp.

PORTABLE-ITEM SHOPLIFTING TAGS

General Nucleonics, Inc.
Infinetics, Inc.
Knogo Corp.
Magnetometric Devices, Inc.
Minnesota Mining and Mfg. Co.
Se-Kure Controls, Inc.
Sensormatic Electronics Corp.

POSTERS/PAYCHECK INSERTS

Morton Suggestion Co.

SHOPLIFTING CIRCUITS

Aerolite Electronics Corp.
Mountain West Alarm Supply Co.
Protecto Alarm Sales
Se-Kure Controls, Inc.
SGM Corp.

TELEPHONE SCRAMBLERS

Boeing Electronics
Data Transmission Sciences, Inc.
Fargo Co.
North American Philips Corp.
Technical Communications Corp.
UFAD Corp.

VIDEO SWITCHES

Dynair Electronics, Inc.
GBC Closed Circuit TV Corp.
Javelin Electronics
Monaco Enterprises, Inc.
Raven Electronics Corp.
SC Electronics, Inc.
Telemation, Inc.
Vicon Industries, Inc.

WAFER SWITCHES

Eaton Corp.
Eico Electronic Instrument Co., Inc.
Herbach & Rademan, Inc.
Mountain West Alarm Supply Co.
Tapeswitch Corp. of America

WATCHCLOCK SYSTEMS

Carol Products Co.
Detex Corp.
Honeywell, Inc.
Mosler Safe Co.
Sentry Technology, Inc.

MANUFACTURERS' ADDRESSES AND PHONE NUMBERS

A-1 ALARMATIC PROTECTIVE SYSTEMS, INC.
1122 United Founders Tower
Oklahoma City, OK 73112
405-843-6656

ACCURATE LOCK & HARDWARE CO.
26 Diaz St.
Stamford, CT 06902
203-325-3841

ACRON CORP.*
1095 Towbin Ave.
Corporate Park
Lakewood, NJ 08701
201-364-7200

ADAMS RITE MFG. CO.
4040 South Capitol Ave.
City of Industry, CA 91749
213-699-0511

ADCOR ELECTRONICS
349 Peachtree Hills Ave., N.E.
Atlanta, GA 30305
404-261-0245

ADVANCED DEVICES LABORATORY, INC.
520 South Rock Blvd.
Reno, NV 89502
702-329-3188

AERITECH CORP.
25 Newbury St.
Framingham, MA 01701
617-620-0800

AERODYNE CONTROLS CORP.
90 Gazza Blvd.
Farmingdale, NY 11735
516-694-3500

AEROLITE ELECTRONICS CORP.
2207 Summit Ave.
Union City, NJ 07087
201-863-2562

AIMSCO, INC.*
4024 22nd Ave., West
Seattle, WA 98199
206-284-5563

ALARM CONTROLS CORP.
151-22 W. Industry Ct.
Deer Park, NY 11729
516-586-4220

ALARM DEVICE MFG. CO.
165 Eileen Way
Syosset, NY 11791
516-921-6700

ALARM EQUIPMENT CO. (ALECO)
325 7th St.
Oakland, CA 94607
415-452-3211

ALARM LOCK CORP.
5411 Telegraph Rd.
Los Angeles, CA 90040
213-726-9811

ALARM PRODUCTS INTERNATIONAL, INC.*
24-02 40th Ave.
Long Island City, NY 11101
212-937-4900

ALARM SUPPLY CO., INC.*
12551 Globe Rd.
Lavonia, MI 48150
313-591-9100

ALEXANDER MFG. CO.
P. O. Box 1645
Mason City, IA 50401
515-423-8963

ALL-RITE INDUSTRIES, INC.*
2470 N.W. 151st St.
Opa Locka, FL 33054
305-681-4669

AMERACE CORP.
2330 Vauxhall Rd.
Union, NJ 07083
201-686-6000

AMERICAN DEVICE MFG. CO.
P. O. Box 8
Steelville, IL 62288
618-965-3491

AMERICAN MULTIPLEX SYSTEMS, INC.*
175 Freedom Ave.
Anaheim, CA 92801
714-870-5821

AMERICAN SECURITY PRODUCTS, INC.*
634 Park Ave.
Uniondale, NY 11553
516-481-4745

AMF PARAGON, INC.
606 Parkway Blvd.
Two Rivers, WI 54241
414-793-1161

ANCHOR POST PRODUCTS, INC.*
6500 Eastern Ave.
Baltimore, MD 21224
301-633-6500

ANNANDALE, INC.
4200 Medical Pkwy.
Suite 302
Austin, TX 78756
512-451-7531

APC, INC.
4438 S. 74th East Ave.
Tulsa, OK 74145
918-664-8484

ARCHITECTURAL HARDWARE CO.
Second Street at Cleveland Ave.
Wilmington, DE 19805
302-658-7386

ARROW LOCK CORP.*
4900 Glenwood Rd.
Brooklyn, NY 11234
212-253-6500

ARROWHEAD ENTERPRISES, INC.
P. O. Box 929, Anderson Ave.
New Milford, CT 06776
203-354-9381

ARTISAN ELECTRONICS CORP.
5 Eastmans Rd.
Parsippany, NJ 07054
201-887-7100

ASHBY & ASSOCIATES
1730 M St., N.W.
Suite 511
Washington, DC 20036
202-296-3840

ASPHERONICS, INC.
P. O. Drawer 1334
Leesburg, VA 22075
703-777-7020

ASTROPHYSICS RESEARCH CORP.
1526 W. 240th St.
Harbor City, CA 90710
213-534-4370

AUTH ELECTRIC CO., INC.
505 Acorn St.
Deer Park, NY 11729
516-667-9000

AUTO-MATIC PRODUCTS CO.
1918 S. Michigan Ave.
Chicago, IL 60616
312-842-1600

BABACO ALARM SYSTEMS, INC.
1775 Broadway
New York, NY 10019
212-977-7530

BADGER-POWHATAN
P. O. Box 7146
Charlottesville, VA 22906
804-973-4361

BALDWIN ELECTRONICS, INC.
1101 Mcalmont
Little Rock, AR 72203
501-372-7351

BARNES ENGINEERING CO.
30 Commerce Rd.
Stamford, CT 06904
203-348-5381

BBW SERVICE
P. O. Box 2043
Los Angeles, CA 90051
213-269-8111

BELL AND HOWELL COMMUNICATIONS CO.
78 Blanchard Rd.
Burlington, MA 01803
617-273-1210

BELLAIRE ASSOCIATES, INC.*
820 Second Ave.
New York, NY 10017
212-732-6565

BENJAMIN ELECTRIC MFG. CO.*
P. O. Box 180
Sparta, TN 38583
615-738-2241

BEST LOCK CORP.
6161 E. 75th St.
Indianapolis, IN 46206
317-849-2250

BOEING ELECTRONICS
P. O. Box 24666
Seattle, WA 98124
206-773-1368

BOLEN INDUSTRIES, INC.
789 Main St.
Hackensack, NJ 07601
201-489-7722

BOWMAR INSTRUMENT CORP.
8000 Bluffton Rd.
Fort Wayne, IN 46809
219-747-3121

BRASH INDUSTRIES
P. O. Box 9250
Marina Del Rey, CA 90291
213-821-5076

C.A. BRIGGS CO.*
Cybersonic Div.
P. O. Box 151
Glenside, PA 19038
215-885-2244

BRIGHT STAR INDUSTRIES, INC.
600 Getty Ave.
Clifton, NJ 07015
201-772-3200

E.J. BROOKS CO.
164 N. 13th St.
Newark, NJ 07107
201-483-0335

CALSPAN CORP.
P. O. Box 235
Buffalo, NY 14221
716-632-7500

CAMPBELL CHAIN CO.
P. O. Box 1667, Rd. 9
York, PA 17405
717-755-2921

CARDKEY SYSTEMS
20339 Nordhoff St.
Chatsworth, CA 91311
213-882-8111

CAROL PRODUCTS CO.
1560 Springfield Ave.
Maplewood, NJ 07040
201-761-7474

CENTRAL SPECIALTIES CO.
6030 N. Northwest Hwy.
Chicago, IL 60631
312-774-5000

CHAMBERS SYSTEMS, INC.
13400 W. Seven Mile Rd.
Detroit, MI 48021
313-863-8650

CHARLES BAR-LOCK CORP.
333 West 195th St.
Glenwood, IL 60425
312-755-6600

CHIC SALES CO., INC.
P. O. Box 373
1943 Placentia Ave.
Costa Mesa, CA 92627
714-646-0293

CHICAGO BULLET PROOF EQUIPMENT CO.
2250 Western Ave.
Park Forest, IL 60466
312-481-3400

CHICAGO LOCK CO.*
4311 W. Belmont Ave.
Chicago, IL 60641
312-282-7177

CHRISTY INDUSTRIES, INC.
1812 Bath Ave.
Brooklyn, NY 11214
212-236-0211

CHROMALLOY SAFETEE GLASS CO., INC.
250 King Manor Dr.
King of Prussia, PA 19406
215-277-3100

CITADEL PRODUCTS, LTD.
Stadium Works, Watkin Rd.
Wembley, Middlesex, United Kingdom
01-9035366

CLARK DOOR CO., INC.*
75 Mon St.
Cranford, NJ 07016
201-272-5100

COLEMAN SYSTEMS
18842 Teller Ave.
Irvine, CA 92664
714-833-1810

COLORGUARD CORP.
1 Johnson Dr.
Raritan, NJ 08869
201-526-0255

CONRAC CORP.
Systems West
1600 South Mt. Ave.
Duarte, CA 91010
213-359-9141

CONTINENTAL INSTRUMENTS CORP.
170 Lauman Lane
Hicksville, NY 11801
516-938-0800

"CONTROLLOR SYSTEMS" CORP.
21363 Gratiot Ave.
East Detroit, MI 48021
313-772-6100

CONTRONIC CONTROLS, LTD.
7611 Bath Rd.
Malton, Ontario, Canada L4T 3T1
416-678-1032

CORBIN HARDWARE DIV.*
Emhart Industries, Inc.
Berlin, CT 06037
203-225-7411

CORDE LOCKING SYSTEMS
14-56 Bell Blvd.
Bayside, NY 11360
212-423-3116

H.W. CRANE CO.
15 N. 9th Ave.
Maywood, IL 60153
312-345-1333

CRITERION GATE AND MFG. CO., INC.
4614 E. Washington Blvd.
Los Angeles, CA 90040
213-261-6141

DART ALARMS, INC.
1930 North East 151 St.
Miami, FL 33162
305-945-2070

DATA TRANSMISSION SCIENCES, INC.
890 Ethan Allen Hwy.
Ridgefield, CT 06877
203-438-6009

DATACOM, INC.
P. O. Box 278
Fort Walton Beach, FL 32548
904-244-6121

JOHN DEGORTER, INC.*
1044 Northern Blvd.
Roslyn, NY 11576
516-484-5220

JOHN DEGROOT
434 Parkinson Terrace
Orange, NJ 07050
201-672-9209

DELTA ELECTRIC
3302 S. Nebraska St.
Marion, IN 46952
317-674-2293

DELTA PRODUCTS, INC.
630 S. 7th St.
Grand Junction, CO 81501
303-242-9000

DETECTION SYSTEMS, INC.*
400 Mason Rd.
Fairport, NY 14450
716-223-4060

DETECTRON SECURITY SYSTEMS, INC.*
Bay St.
P. O. Box 1980
Sag Harbor, NY 11963
516-725-2600

DETEX CORP.
4147 Ravenswood Ave.
Chicago, IL 60613
312-348-3377

DETROIT MINI-SAFE CO.
13660 Elmira Ave.
Detroit, MI 48227
313-931-7720

DEXTER LOCKS
Div. of Kysor Industrial Corp.
1601 Madison Ave., S.E.
Grand Rapids, MI 49507
616-245-9221

DOOR ALARM DEVICES CORP.
20 Lucon Dr.
Deer Park, NY 11729
516-586-2400

DOPPLER CORP.
2401 University Ave.
St. Paul, MN 55114
612-647-0707

DRESSEN-BARNES ELECTRONICS CORP.
Crime Prevention Systems Div.
250 N. Vinedo Ave.
Pasadena, CA 91107
213-681-0643

DUKANE CORP.*
Communications Systems Div.
2900 DuKane Dr.
St. Charles, IL 60174
312-584-2300

DUNBAR-NUNN CORP.
1108 Raymond Way
Anaheim, CA 92801
714-871-3336

DYNACOM*
890 G South Pickett St.
Alexandria, VA 22304
703-751-3133

DYNAIR ELECTRONICS, INC.*
5275 Market St.
San Diego, CA 92114
714-263-7711

DYNA-VISION INTERNATIONAL
1440 S. State College Blvd.
Anaheim, CA 92806
714-533-4121

DYTRON, INC.*
223 Crescent St.
Waltham, MA 02154
617-891-9489

EASTMAN KODAK CO.
343 State St.
Rochester, NY 14650
716-325-2000

EATON CORP., YALE SECURITY CENTER
Box 25288
Charlotte, NC 28212
704-283-2101

EBERLING'S ALARM CO.*
6600 West Route 83
Palos Heights, IL 60463
312-597-9099

ECO SECURITY CORP.*
139 Victor St.
St. Louis, MO 63104
314-772-4400

EDMUND SCIENTIFIC CO.
300 Edscorp Bldg.
Barrington, NJ 08007
609-547-3488

EICO ELECTRONIC INSTRUMENT CO., INC.
283 Malta St.
Brooklyn, NY 11207
212-272-1100

ELAN INDUSTRIES, INC.
2429 University Ave.
St. Paul, MN 55114
612-645-8678

ELECTROHOME, LTD.
809 Wellington N.
Kitchener, Ontario, Canada N2G 4J6
519-744-7111

ELECTRO-VOICE, INC.
600 Cecil St.
Buchanan, MI 49107
616-695-6831

ELPOWER CORP.*
2117 S. Anne St.
Santa Ana, CA 92704
714-540-6155

EMERGENCY LIGHTING AND SYSTEMS, INC.
130 King St.
Cohasset, MA 02025
617-383-6500

EMERGENCY PRODUCTS CORP.
25 Eastmans Rd.
Parsippany, NJ 07054
201-386-1510

ESB, INC.
Exide Safety Systems Div.
39 Teed Dr.
Randolf, MA 02368
617-986-4400

ESTERLINE SECURITY SYSTEMS*
3501 N. Harbor Blvd.
Costa Mesa, CA 92626
714-540-1234

FALCON LOCK*
4100 Ardmore Ave.
South Gate, CA 90280
213-564-6771

FALCON SAFETY PRODUCTS, INC.
1137 Route 22
Mountainside, NJ 07092
201-233-5000

FARGO CO.
1162 Bryant St.
San Francisco, CA 94103
415-621-4471

FEDERAL SIGNAL CORP.
13601 S. Western Ave.
Blue Island, IL 60406
312-468-4500

FICHET, INC.
P. O. Box 767C
Pasadena, CA 91104
213-792-2398

FILMDEX CHEX SYSTEM, INC.
15500 Lee Hwy.
Centreville, VA 22020
703-631-0600

FJW INDUSTRIES
215 E. Prospect Ave.
Mount Prospect, IL 60056
312-259-8100

FLASHGUARD, INC.*
927 Penn Ave.
Pittsburg, PA 15222
412-391-9413

FOLGER ADAM CO.*
700 Railroad St.
Joliet, IL 60436
815-723-3438

FORT LOCK CORP.*
3000 N. River Rd.
River Grove, IL 60171
312-456-1100

FOX POLICE LOCK CO.
46 W. 21st. St.
New York, NY 10010
212-924-0211

FRANKLIN LOCK AND PULLEY MFG. CO.
832-840 Shepard Ave.
Brooklyn, NY 11208
212-272-8000

A. W. FRUH AND CO.
1815 N. Orchard St.
Chicago, IL 60614
312-642-4565

GARD OF CLEVELAND, INC.
207 Sandusky St.
Pittsburg, PA 15212
412-231-0990

GATES ENERGY PRODUCTS, INC.
1050 S. Broadway
Denver, CO 80217
303-744-4806

GBC CLOSED CIRCUIT TV CORP.
74 5th Ave.
New York, NY 10011
212-989-4433

GC ELECTRONICS
400 S. Wyman St.
Rockford, IL 61101
815-968-9661

GENCOM DIV., VARIAN/EMI
80 Express St.
Plainview, NY 11803
516-433-5900

GENERAL BINDING CORP.
1101 Skokie Blvd.
Northbrook, IL 60062
312-272-3700

GENERAL ELECTRIC CO.*
316 E. 9th St.
Owensboro, KY 42301
502-683-2401

GENERAL ELECTRODYNAMICS CORP.*
4430 Forest Lane
Garland, TX 75042
214-276-1161

GENERAL NUCLEONICS, INC.
P. O. Box 116
Brunswick, OH 44212
216-225-3029

GENERAL SAFEGUARD SYSTEMS, INC.*
406 Moody St.
Waltham, MA 02154
617-891-4849

GREENWALD INDUSTRIES, INC.
1340 Metropolitan Ave.
Brooklyn, NY 11237
212-456-6900

GUARD/AWARE, INC.
98 Westgate
Brockton, MA 02403
617-588-2246

HAGER CONTROL SYSTEMS
10765 Indian Head Industrial Blvd.
St. Louis, MO 63132
314-427-2157

A. L. HANSEN MFG. CO.
2126 Delaney Rd.
Gurnee, IL 60031
312-244-8900

HARDWARE SALES AND SUPPLY CO.*
2955 Grand River Ave.
Detroit, MI 48201
313-964-4500

HARLOC PRODUCTS CORP.*
135 Wood St.
West Haven, CT 06516
203-934-2683

HEATH CO.
Benton Harbor, MI 49022
616-982-3200

KARL HEITZ, INC.
979 Third Ave.
New York, NY 10022
212-421-5220

HERBACH AND RADEMAN, INC.*
401 East Erie Ave.
Philadelphia, PA 19134
215-426-1700

HIGHWAY SAFETY FOUNDATION, INC.
890 Hollywood Lane
Mansfield, OH 44907
419-756-5593

HOBBY HILL, INC.
415 N. State St.
Chicago, IL 60610
312-944-2144

H. HOFFMAN CO.*
7330 West Montrose
Chicago, IL 60634
312-456-9600

HOFFMAN NAVCOM SYSTEMS
4323 Arden Dr.
El Monte, CA 91734
213-442-0123

HOLOPHANE EMERGENCY LIGHTING PRODUCTS
13500 Saticoy St.
Van Nuys, CA 91402
213-781-7500

HOME PROTECTOR MFG. CO., INC.
12431 E. Putnam Dr.
Whittier, CA 90602
213-699-6130

HONEYWELL, INC.*
Commercial Div.
2701 4th Ave.
South Minneapolis, MN 55408
612-870-5200

IDENTIFONE CONTROLLED ENTRY CO.*
7315 Lankershim Blvd.
North Hollywood, CA 91609
213-875-1663

IDENTIMATION CORP.
408 Paulding Ave.
Northvale, NJ 07647
201-767-0213

ILLINOIS LOCK CO.*
301 W. Hintz Rd.
Wheeling, IL 60090
312-537-1800

IMPERIAL SCREEN CO., INC.*
5336 W. 145th St.
Lawndale, CA 90260
213-772-7465

IMPOSSIBLE ELECTRONIC TECHNIQUES, INC.
121 Pennsylvania Ave.
Wayne, PA 19087
215-687-5400

INFINETICS, INC.
1601 Jessup St.
Wilmington, DE 19802
302-658-2471

INTEGRATED ELECTRONICS, LTD.
16 Wongchuchang Rd.
Hong Kong
5-530-121

JACKSON EXIT DEVICE
3447 Union Pacific Ave.
Los Angeles, CA 90023
213-269-9271

JAVELIN ELECTRONICS
6357 Arizona Circle
Los Angeles, CA 90045
213-641-4490

JEFFERSON SCREW AND BOLT INDUSTRIES, INC.
691 Broadway
New York, NY 10012
212-777-8400

JOHNSON-PACIFIC SAFE CO.
913 Hoffman Blvd.
Richmond, CA 94804
415-234-4254

KANE MFG. CORP.
P. O. Box 641
Kane, PA 16735
814-837-6464

KEENE CORP.
2319 Grissom Dr.
St. Louis, MO 63141
314-567-4444

WALTER KIDDE AND CO., INC.
675 Main St.
Belleville, NJ 07109
201-759-5000

KING RESEARCH LABS.
801 S. Eleventh Ave.
Maywood, IL 60153
312-344-7877

KINNEAR CORP.
1191 Field Ave.
Columbus, OH 43201
614-294-4451

KMS TECHNOLOGY CENTER
P. O. Box 4556
Irvine, CA 92664
714-752-8900

KNOGO CORP.
112 State St.
Westbury, NY 11590
516-997-9292

KOLIN INDUSTRIES, INC.
P. O. Box 357, Pondfield Rd.
Bronxville, NY 10708
914-961-5065

KWIKSET LOCKSETS
516 E. Santa Ana Ave.
Anaheim, CA 92803
714-535-8111

LAKE JACKSON INDUSTRIES, INC.
1830 Massachusetts Ave.
McLean, VA 22101
703-538-4677

LAMINATED GLASS CORP.
P. O. Box 190
355 W. Lancaster Ave.
Haverford, PA 19041
215-642-2344

LASER SYSTEMS CORP.
396 W. Washington St.
Ann Arbor, MI 48010
313-761-7150

LASSEN ELECTRONICS CORP.
37477 Centralmont Pl.
Fremont, CA 95436
415-792-0709

LEDEX, INC.
College and South Sts.
Piqua, OH 45356
513-773-8271

LEIGH PRODUCTS, INC.
P. O. Box 1887
50 Ives Place
New Haven, CT 06508
203-772-0310

LENZAR OPTICS CORP.
210 Brant Rd.
Lake Park, FL 33403
305-844-0263

LEVITON MFG. CO., INC.
236 Greenpoint Ave.
Brooklyn, NY 11222
212-229-4040

LINEAR CORP.*
347 S. Glasgow Ave.
Inglewood, CA 90301
213-649-0222

LOCK CORP. OF AMERICA
6301 W. Mill Rd.
Milwaukee, WI 53218
414-353-3600

LOEHR BURGLAR ALARMS
9149 White Oak Ave.
Northridge, CA 91325
213-366-2001

LORI CORP.*
Old Turnpike
Southington, CT 06489
203-621-3601

LOSS PREVENTION DIAGNOSTICS, INC.
810 Passaic Ave.
West Caldwell, NJ 07006
201-575-1265

LOXEM MFG. CORP.*
P. O. Box 190
Richardson, TX 75080
214-238-7845

LUSTRE LINE PRODUCTS*
Richmond and Morris Sts.
Philadelphia, PA 19125
215-739-6022

CHARLES S. MACCRONE PRODUCTIONS
8048 Soquel Dr.
Suite H
Aptos, CA 95003
408-688-1040

M.A.G. ENG. & MFG., INC.
13711 Alma Ave.
Gardena, CA 90249
213-321-9942

MAGIC EYE ASSOCIATES, INC.
100 Oak St.
Norwood, NJ 07648
201-768-8730

MAGNETOMETRIC DEVICES, INC.
45 Osgood St.
Methuen, MA 01844
617-682-0570

MALLORY DISTRIBUTOR PRODUCTS CO.
101 S. Parker Ave.
Indianapolis, IN 46206
317-261-1501

MARS SIGNAL LIGHT CO., INC.*
1224 Industrial Rd.
Naples, FL 33940
813-774-1811

MAST-KEYSTONE DEVELOPMENT CO.*
2212 E. 12th St.
Davenport, IA 52793
319-326-0141

MASTER LOCK CO.*
2600 N. 32nd St.
Milwaukee, WI 53245
414-444-2800

MB ASSOCIATES
P. O. Box 196
San Ramon, CA 94583
415-837-7201

MEDECO SECURITY LOCKS, INC.*
P. O. Box 1075
229 Apperson Dr.
Salem, VA 24153
703-387-0481

MILES REPRODUCER CO., INC.
598 Broadway
New York, NY 10012
212-925-6985

MINNESOTA MINING AND MFG. CO.
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